

Riverside

Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
Jessica Frances, Village Manager 27 Riverside Road Riverside, IL 60546 Telephone: 708-447-2700 Email Address: jfrances@riverside.il.us	Matt Buckley, Director of Public Safety 27 Riverside Road Riverside, IL 60546 Telephone: 708-447-2123 ext. 306 Email Address: mbuckley@riverside.il.us

Jurisdiction Profile

The following is a summary of key information about the jurisdiction and its history:

Date of Incorporation: 1875

Current Population: The 2020 U.S. Census population was 9,298. The 2022 U.S. Census estimate indicated the population was 8,940.

Population Growth: The overall population has increased by 3.41% between 2018 and 2022.

Location and Description: Riverside is a western suburb of Chicago in Cook County located 13 miles west of the Chicago Loop. Bordering suburbs include North Riverside to the north, Berwyn to the east, Stickney to the southeast, Lyons to the south, and Brookfield to the west. Interstate 290 immediately accessible 1.6 miles directly north of the Village. The Des Plaines River runs through the west half of the village. According to the 2010 census, the village has a total area of 2.00 square miles.

Brief History: Riverside is arguably one of the first planned communities in the United States, designed in 1869 by Calvert Vaux and Frederick Law Olmsted. The Riverside Landscape Architecture District, an area bounded by 26th Street, Harlem and Ogden avenues, the Des Plaines River, and Golf Road, was designated a National Historic Landmark in 1970. The majority of Riverside homes were built before 1939 (app. 2,210), much later followed by a housing boom in 2005 or later (app. 2,006). Since 1970, Riverside has been a National Historic Landmark with expansive green parkways, curvilinear streets, and older architecture including Frank Lloyd Wright homes. Riverside was added to the U.S. National Register of Historic Places September 15, 1969.

Climate: The climate of Riverside is controlled by many factors, but the two main factors that primarily account for shifts in temperature and precipitation are the sun and weather systems. Average annual temperatures range is approximately 48°F. Average winter highs range from the 30s to the low-40s, while average lows range from the teens to the upper 20s. Average summer highs are in the 80s, while lows are in the 60s. Both spring and fall have more moderate temperatures. Average spring highs are 57°F, while average lows are 36°F. Average fall highs are approximately 60°F, while average lows is approximately 40°F. On average, Riverside warmest month is July. Riverside averages 10 days at or above 90°F. Days at or above 100°F are quite rare, occurring about every other year. The

average coolest month is January. Days at or below 0°F ranges is approximately 16 days annually. The highest recorded temperature was 107°F in 1934 and the lowest recorded temperature was -25°F in 1985. The maximum average precipitation occurs in May. The average precipitation is 39 inches, annually.

Governing Body Format: The Village of Riverside operates under a council-manager form of government. The Village President and six Trustees are elected at-large and they do not represent particular wards or areas of the Village. A given term is four years and there are no term limits; Trustees may run for re-election as often as they choose. Village elections are held every two years in April. The President, with the concurrence of the Trustees, appoints the Village Manager. The Village Manager is responsible for implementing Board policies and handling day-to-day operations of the Village and is responsible for overseeing and regulating different aspects of the Village. This body of Government will assume the responsibility for the adoption and implementation of this plan. Riverside operates 6 departments including the Police Department, Fire Department, Finance Department, Community Development, Public Works Department, and the Parks and Recreation Department. Riverside is mostly in Illinois' 4th congressional district, with a small portion in Illinois' 3rd congressional district.

Development Trends: The Village of Riverside is a built out community with limited open space available for development. The type of development typical in Riverside is one in which existing single family structures are replaced with new single-family units. The Village does not anticipate any residential change in the near future. Riverside has small but growing retail, business and professional communities. These groups through the Riverside Township is working toward a viable, and prosperous business climate; to serve as a forum in which, business, government, civic, cultural and educational interests can work together to promote businesses and to attract new businesses to the community. On April 15, 2013, the Village of Riverside approved a Comprehensive Plan for the Riverside Central Business District Plan developed by the Chicago Metropolitan Agency for Planning (CMAP). Staff developed a Scope of Work for this project that include the Memorandum of Understanding setting program tasks, a timeline for the program and recommendations by community steering committees to assist CMAP staff in developing the final plan and recommendations. Per the direction of staff and the Village Board of Trustees, the committee was comprised of the chairs or designees of the following: Plan Commission, Economic Development Commission, Landscape Advisory Commission, Preservation Commission, Historical Commission, Parks & Recreation Commission and Chamber of Commerce

Changes in Community Priorities: There have been no significant changes in priority regarding the hazards that could potentially impact the community or changes in priority regarding resilience.

Capability Assessment

The assessment of the jurisdiction's legal and regulatory capabilities is presented in the *Legal and Regulatory Capability Table* below. The assessment of the jurisdiction's fiscal capabilities is presented in the *Fiscal Capability Table* below. The assessment of the jurisdiction's administrative and technical capabilities is presented in the *Administrative and Technical Capability Table* below. Information on the community's National Flood Insurance Program (NFIP) compliance is presented in the *National Flood Insurance Program Compliance Table* below. Classifications under various community mitigation programs are presented in the *Community Classifications Table* below.

TABLE: LEGAL AND REGULATORY CAPABILITY					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Yes	No	No	Yes	In accordance with Public Act 096-0704, Illinois has adopted the IBC as its state Building Code Ordinance No. 1222
Zonings	Yes	No	No	Yes	Ord. 2550, 12-19-2005
Subdivisions	Yes	No	No	No	Ord. 2566, 6-5-2006
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. Title 4-13-3
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	No	No	No	No	
Site Plan Review	Yes	No	No	No	Title 10-2-2-4
Public Health and Safety	Yes	No	No	No	Ord. 2437, 1-21-2003
Environmental Protection	No	No	No	No	
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	CMA – 4/15/2013
<i>Is the plan equipped to provide integration to this mitigation plan?</i>					No
Floodplain or Basin Plan	Yes	No	No	No	
Stormwater Plan	Yes	No	Yes	No	Regional stormwater impacts are managed by MWRD. The

					Village lies within the lower Des Plaines watershed planning area of MWRD's comprehensive Stormwater Master Planning Program
Capital Improvement Plan	Yes	No	No	No	
<i>What types of capital facilities does the plan address?</i>					No facilities included in CIP at this time
<i>How often is the plan revised/updated?</i>					Annually
Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	Yes	No	No	Yes	CMAP – 4/15/2013
Shoreline Management Plan	No	No	No	No	
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	No	No	Yes	Local EOP
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County EMRS Preparing THIRA
Terrorism Plan	No	No	Yes	Yes	Cook County EMRS
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	No	No	Yes	No	Cook County EMRS
Public Health Plans	No	No	Yes	No	Cook County DPH

TABLE: FISCAL CAPABILITY	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	No
User Fees for Water, Sewer, Gas or Electric Service	No

Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Other	

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Consulting Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Consulting Engineer
Planners or engineers with an understanding of natural hazards	Yes	Consulting Engineer
Staff with training in benefit/cost analysis	Yes	
Surveyors	Yes	Consulting Engineer
Personnel skilled or trained in GIS applications	Yes	GIS Consortium (minimum GIS staff)
Scientist familiar with natural hazards in local area	Yes	
Emergency manager	Yes	Fire Chief is designated as Emergency Manager
Grant writers	Yes	Consulting Engineer

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

What department is responsible for floodplain management in your jurisdiction?	Department of Public Works
Who is your jurisdiction's floodplain administrator? (department/position)	Village Manager
Are any certified floodplain managers on staff in your jurisdiction?	Consulting Engineer
What is the date of adoption of your flood damage prevention ordinance?	Ordinance 2681, 8-18-2008
When was the most recent Community Assistance Visit or Community Assistance Contact?	April 2013
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	None to our knowledge
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes, Assistance with FEMA's Flood Insurance Premium Discounts Calculations program
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	Not yet, but notification has officially been

	requested to FEMA and IDNR Community Assistance Visit.
--	--

NFIP Participation Activities

Maintaining compliance under the NFIP is an important component of flood risk reduction. All planning partners that participate in the NFIP have identified actions to maintain their compliance and good standing. Cook County entered the NFIP on April 15, 1981. Structures permitted or built in the County before then are called “pre-FIRM” structures, and structures built afterwards are called “post-FIRM.” The insurance rate is different for the two types of structures. The effective date for the current countywide FIRM is August 19, 2008. This map is a DFIRM (digital flood insurance rate map). The communities in Cook County that participate in the NFIP are shown in **Table: NFIP Participating Communities in Cook County** in **Volume I** of the Cook County MJ-HMP.

The NFIP makes federally-backed flood insurance available to homeowners, renters, and business owners in participating communities. The communities in Cook County that participate in the NFIP and their "Policies in Force," "Total Coverage," and "Total Written Premiums" are shown in **Table: Cook County Flood Insurance Policies** in **Volume I** of the Cook County MJ-HMP.

Substantial Improvement Rule and the Substantial Damage Rule

The IDNR/OWR has developed a model ordinance for floodplain management, which has been adopted by most communities in Illinois. The ordinance includes the minimum requirements an NFIP participating jurisdiction must adopt and enforce, as well as additional higher regulatory requirements. The optional, higher regulatory standards include a minimum one foot of freeboard above the base flood elevation and cumulative tracking of damage repairs and improvements to establish substantial damage and substantial improvement compliance. Some jurisdictions have chosen to exceed the requirements of the model ordinance and have adopted more restrictive ordinances. This is most common in the communities in northeastern Illinois.

Existing Municipal Code:

4-10-2 Definitions

SUBSTANTIAL DAMAGE: Damage of any origin sustained by a structure whereby the cumulative percentage of damage, during a ten (10) year period, equals or exceeds fifty percent (50%) of the market value of the structure before the damage occurred regardless of actual repair work performed. Volunteer labor and materials must be included in this determination. The term includes repetitive loss buildings. See definition of Repetitive Loss.

SUBSTANTIAL IMPROVEMENT: Any reconstruction, rehabilitation, addition, or improvement of a structure taking place, during a ten (10) year period, in which the cumulative percentage of improvements equals or exceeds fifty percent (50%) of the market value of the structure before the improvement or repair is started.

(A) "Substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes structures which have incurred repetitive loss or substantial damage, regardless of the actual work done.

(B) The term does not, however, include either:

1. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or
2. Any alteration of a "historic structure" listed on the National Register of Historic Places or the Illinois Register of Historic Places, provided that the alteration will not preclude the structure's continued designation as a historic structure.

4-10-4 Duties of Village Manager

(A) Determining The Floodplain Designation:

1. Check all new development sites to determine whether they are in a special flood hazard area (SFHA).
2. If they are in an SFHA, determine whether they are in a floodway, flood fringe or in a floodplain for which a detailed study has not been conducted and which drains more than one square mile.
3. Check whether the development is potentially within an extended SFHA (with a drainage area less than 1 square mile), indicating that the development would have adverse impacts regarding storage, conveyance, or inundation which would be the basis for the applicant being required to delineate the floodplain and floodway and be subject to the remaining sections of this chapter.

(B) Professional Engineer Review:

1. If the development site is within a floodway or in a floodplain for which a detailed study has not been conducted and which drains more than one square mile, the permit shall be referred to a licensed professional engineer under the employ or contract of the village for review to ensure that the development meets section [4-10-7](#) or [4-10-8](#) of this chapter.
2. In the case of an appropriate use, the PE shall state in writing that the development meets the requirements of section [4-10-7](#) of this chapter.

(G) Damage Determinations: Make damage determinations of all damaged buildings in the SFHA after a flood to determine substantially damaged structures which must comply with subsection [4-10-9\(C\)3](#) of this chapter.

4-10-19 Permitting Requirements Applicable to all Floodplain Areas

In addition to the requirements found in sections [4-10-6](#), [4-10-7](#) and [4-10-8](#) of this chapter for development in flood fringes, designated floodways, and SFHA or floodplains where no floodways have been identified, the following requirements shall be met: (Ord. 2681, 8-18-2008)

(C) Protecting Buildings:

1. All buildings located within a 100-year floodplain, also known as an SFHA, shall be protected from flood damage below the flood protection elevation. This building protection criteria applies to the following situations:

- (a) Construction or placement of a new building or alteration or addition to an existing building valued at more than one thousand dollars (\$1,000.00) or seventy (70) square feet;
- (b) Substantial improvements or structural alterations made to an existing building that increase the floor area by more than twenty percent (20%) or equal or exceed the market value by fifty percent (50%). Alteration shall be figured cumulatively subsequent to the adoption of this chapter. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section;
- (c) Repairs made to a substantially damaged building. These repairs shall be figured cumulatively subsequent to the adoption of this chapter. If substantially damaged the entire structure must meet the flood protection standards of this section;
- (d) Installing a manufactured home on a new site or a new manufactured home on an existing site (the building protection requirements do not apply to returning a manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage);
- (e) Installing a travel trailer or recreational vehicle on a site for more than one hundred eighty (180) days per year; and
- (f) "Repetitive loss" to an existing building as defined in section [4-10-2](#) of this chapter. This building protection requirement may be met by one of the following methods:

2. A residential or nonresidential building, when allowed, may be constructed on permanent landfill in accordance with the following:

- (a) Lowest Floor: The lowest floor (including basement) shall be at or above the flood protection elevation; and
- (b) Fill Requirements:
 - (1) The fill shall be placed in layers no greater than six inches (6") deep before compaction and should extend at least ten feet (10') beyond the foundation of the building before sloping below the flood protection elevation; and
 - (2) The top of the fill shall be above the flood protection elevation. However, the ten foot (10') minimum may be waived if a structural engineer certifies an alternative method to protect the building from damages due to hydrostatic pressures; and
 - (3) The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap or other structural measure; and
 - (4) The fill shall be composed of rock or soil and not incorporate debris or refuse materials; and
 - (5) The fill shall not adversely affect the flow or surface drainage from or onto neighboring properties, and when necessary, stormwater management techniques such as swales or basins shall be incorporated.

3. A residential or nonresidential building may be elevated in accordance with the following:

- (a) The building or improvements shall be elevated on crawl space, stilts, piles, walls, or other foundation that is permanently open to floodwaters and not subject to damage by hydrostatic pressures of the base flood or 100-year frequency flood. Designs must either be certified by a licensed professional engineer or architect or the permanent

openings, one on each wall, shall be no more than one foot (1') above existing grade, and consist of a minimum of two (2) openings. The openings must have a total net area of not less than one square inch for every one square foot of enclosed area subject to flooding below the base flood elevation; and

(b) The foundation and supporting members shall be anchored and aligned in relation to flood flows and adjoining structures so as to minimize exposure to known hydrodynamic forces such as current, waves, ice and floating debris; and

(c) All areas below the flood protection elevation shall be constructed of materials resistant to flood damage; and

(1) The lowest floor (including basement) and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the flood protection elevation; and

(2) Water and sewer pipes, electrical and telephone lines, submersible pumps, and other waterproofed service facilities may be located below the flood protection elevation provided they are waterproofed; and

(3) The areas below the flood protection elevation may only be used for the parking of vehicles, building access or storage in an area other than a basement and not later modified or occupied as habitable space; and

(4) In lieu of the above criteria, the design methods to comply with these requirements may be certified by licensed professional engineer or architect.

(5) Manufactured homes, and travel trailers to be installed on a site for more than one hundred eighty (180) days, shall be elevated to or above the flood protection elevation; and, shall be anchored to resist flotation, collapse, or lateral movement by being tied down in accordance with the rules and regulations for the Illinois mobile home tie down act issued pursuant to 77 Illinois administrative code part 870. In addition, all manufactured homes shall meet the following elevation requirements:

A. In the case of manufactured homes placed or substantially improved: 1) outside of a manufactured home park or subdivision, 2) in a new manufactured home park or subdivision, 3) in an expansion to an existing manufactured home park or subdivision, or 4) in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage from a flood, the top of the lowest floor shall be elevated to or above the flood protection elevation.

B. In the case of manufactured homes placed or substantially improved in an existing manufactured home park or subdivision, the manufactured home shall be elevated so that either the top of the lowest floor is above the base flood elevation or the chassis is at least thirty six inches (36") in height above grade and supported by reinforced piers or other foundations of equivalent strength, whichever is less.

6. Construction of new or substantially improved critical facilities shall be located outside the limits of the floodplain. Construction of new critical facilities shall be permissible within the floodplain if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor (including basement) elevated or structurally dry floodproofed to the 500-year flood

frequency elevation or three feet (3') above the level of the 100-year flood frequency elevation whichever is greater. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities.

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	Unknown	N/A
Public Protection/ISO	Yes	Unknown	N/A
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	Yes	Active	2005

Opportunities to Expand and Improve Capabilities

Opportunities to expand and improve capabilities:

- With regards to flooding, there are several projects that are in need of funding. Such as a residential area prone to flooding and several areas that are in need of sewer separation.
- The ability to find these mitigation projects needs improvement.

Plan Integration

The capability assessment describes opportunities to "link" or integrate the mitigation plan into other planning mechanisms. The process and mechanism to identify opportunities to integrate the Cook County MJ-HMP into other planning mechanisms will occur during the Annual Update Process and be reflected in the Jurisdictional Annual Report each year. Specific plan integration opportunities will include:

- The goals and actions of the Hazard Mitigation Plan will be considered in the next capital improvement planning process.
- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the Comprehensive Plan.
- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the jurisdiction's land use plans, zoning, and subdivision codes.

Emergency Plan Integration:

Cook County EMRS is supporting communities to develop and update their respective Emergency Operations Plans, Continuity of Operations Plan/Continuity of Government Plan, and Recovery Plan in 2024. This is an ongoing countywide initiative and is being implemented in all municipalities.

Emergency Operations Plan (EOP)

An EOP template was created for all municipalities. The 2019 Cook County MJ-HMP and the hazards in the mitigation plan have been integrated into the Situation and Assumptions section of the EOP. Within that section, the natural hazards based on the 2019 MJ-HMP were added in the Initial Analysis and Assessment and Identification of Hazards section of the EOP. The hazards in the 2019 plan and the 2024 MJ-HMP did not change apart from adding wildfires for the Forest Preserve and unincorporated areas of the County. Future updates of the EOP will take into consideration any additional new natural hazards that are added to subsequent updates to the MJ-HMP.

Continuity of Operations Plan (COOP)

The Continuity of Operations Plan (COOP) for the municipality includes a Situation section that is based on the 2019 Cook County MJ-HMP jurisdictional annex, and specifically the hazards identified in the annex. The COOP-specific risk assessment is hazard-specific and based on likelihood of occurrence and severity of impact.

Recovery Plan

The goals of the Recovery Plan were developed to align with the 2019 Cook County MJ-HMP, and specifically prioritizes the responsibility of officials under this plan to save lives, protect property, relieve human suffering, sustain survivors, repair essential facilities, restore services, and protect the environment. The plan acknowledges that hazard mitigation is an important priority and consideration during the rebuilding process.

Jurisdiction-Specific Natural Hazard Event History

The information provided below was solicited from the jurisdiction and supported by NOAA and other relevant data sources.

The *Natural Hazard Events Table* lists all past occurrences of natural hazards within the jurisdiction. Repetitive flood loss records are as follows:

- Number of FEMA-Identified Repetitive Loss Properties: 32 (26 Single Family, 3 Two-Four Family Residence, 3 Other - Residential)
- Number of FEMA-Identified Severe Repetitive Loss Properties: 3 (2 Single Family, 1 Other Residential)
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: None

Federal Disasters Declared

Disaster Declaration Number	Date Declared	Event
DR-227	4/25/1967	Tornado
DR-351	9/4/1972	Flood
DR-373	4/26/1973	Flood
DR-509	6/18/1976	Severe Storm(s)
DR-643	6/30/1981	Severe Storm(s)
DR-776	10/7/1986	Flood
DR-798	8/21/1987	Flood
DR-997	7/9/1993	Flood
DR-1129	7/25/1996	Severe Storm(s)
DR-1188	9/17/1997	Severe Storm(s)
DR-1729	9/25/2007	Severe Storm(s)
DR-1800	10/3/2008	Severe Storm(s)
DR-1935	8/19/2010	Severe Storm(s)
DR-1960	3/17/2011	Snow
EM-3068	1/16/1979	Snow
EM-3134	1/8/1999	Snow
EM-3161	1/17/2001	Snow

EM-3230	9/7/2005	Hurricane – Katrina Evacuation
EM-3435	3/13/2020	Biological
DR-4116	5/10/2013	Flood
DR-4489	3/26/2020	Biological
DR-4728	8/15/2023	Severe Storm(s)
DR-4749	11/20/2023	Flood

State Disaster Declarations

Date Declared	Event
7/26/2010	Severe Storms, High Winds, Torrential Rain
1/31/2011	Winter Weather
4/25/2011 5/25/2011	High Wind, Tornadoes, Torrential Rain
4/18/2013 4/20/2013 4/21/2013 4/25/2013 4/30/2013	Severe Storms, Heavy Rainfall, Flooding, Straight-line Winds
1/6/2014	Heavy Snowfall, Frigid Temperatures
7/12/2017 7/14/2017	Thunderstorms, Heavy Rainfall, Flooding
1/29/2019	Winter Storm
2/6/2020	Severe Storms
3/12/2020 – present (reissued monthly)	COVID-19
2/16/2021	Winter Storms
2/1/2022	Winter Storms
8/1/2022 (reissued monthly through 10/28/2022)	Monkeypox

TABLE: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment/ Event Narrative
Severe Winter Weather	-	12/2013 - 3/2014	-
Severe Summer Weather	-	6/24/2013	Winds were estimated to near 70 mph caused extensive tree damage
Flood	DR-4116	4/17/2013	\$67,690
Severe Winter Weather	DR-1960	1/2011 - 3/2011	-
Severe Summer Weather	-	7/2011	-
Severe Weather and Flooding		7/24/2010	widespread damage and flooding
Severe Weather and Flooding	-	6/23/2010	widespread basement flooding

Severe Weather and Wind		6/18/2010	tree damage
Flood	DR-1935	8/19/2010	-
Flood	DR-1800	9/13/2008	-
Severe Weather and Wind		6/15/2008	Several trees and numerous tree limbs were blown down in Riverside. Part of a tree fell onto a house near Herrick Road.
Severe Weather	-	10/2007	-
Severe Weather and Wind		8/2/2006	A 500 foot to 1,000 foot wide path of tree damage was reported through much of Riverside. Power lines were also blown down.

Jurisdiction-Specific Hazards: Vulnerabilities and Impacts

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2024 Cook County Multi-Jurisdictional Hazard Mitigation Plan Update. This section only addresses the hazards and their associated impacts that are **relevant** and **unique** to the municipality.

Dam/Levee Failure: The Village of Riverside has experienced failure at the Groveland Levee (repetitive breaches of the levee), imperiling many residential and multi-family structures. There is a levee that protects a residential area. There are plans to expand, extend, and increase the height of the levee/floodwall which protects the jurisdiction. This is needed to prevent flooding in a large residential area.

Flood: The Village has experienced flooding at the Des Plaines River. This repeated flooding impacts residential and multi-family structures, as well as 1st Avenue and Riverside Brookfield High School. In 2008, heavy rainfall caused major flooding of the Des Plaines River at Des Plaines and Riverside. The river crested at the second highest level on record at both locations. The crest was 10.00 feet at Des Plaines and 9.86 feet at Riverside. We experience flooding from the DesPlaines River on a regular basis. This presents several issues in regards to flooding, as there is a large residential area that is prone to flooding along this area.

Extreme Heat: The Village's elderly and disabled population are particularly susceptible to the impacts of extreme heat.

Lightning: Previously, severe lightning has caused the Village to be subject to loss of power and telecommunications.

Hail: The Village has experienced property damage from hail.

High Winds: Similar to lightning, the Village is subject to loss of power and telecommunications during high wind events. In 2006, A 500 foot to 1,000 foot wide path of tree damage was reported through much of Riverside. Power lines were also blown down. In 2008, Several trees and numerous tree limbs were blown down in Riverside. Part of a tree fell onto a house near Herrick Road. In 2013, winds were estimated to near 70 mph caused extensive tree damage in the communities of Western Springs, La Grange, and Riverside. Extensive tree damage was reported along the railroad. A six inch diameter tree was blown down at 55th Street and La Grange Road. A six inch diameter tree limb was blown down on the 2300 block of 1st Avenue. Multiple lanes were blocked.

Earthquake: The Village is vulnerable to infrastructure and building damage as a result of earthquakes. It is a very old community with old infrastructure and houses.

Snow: Previously, as a result of severe snow, the Village has lost power and telecommunications and experienced limited access to roadways.

Blizzards: Through the impacts of blizzards, the Village has experienced loss of power and telecommunications, as well as access to roadways.

Extreme Cold: The community has been subject to water main breaks during extreme cold events.

Ice Storms: The Village has experienced loss of power and telecommunications and property damage as a result of ice storms.

Severe Winter Weather: Our aging community has experienced issues due to severe winter weather, and is vulnerable to these events.

Tornado: Based on past damages, the village has experienced loss of power and telecommunications and property damage from wind events. Over the last several years the tornado and high wind occasions have happened more frequently. Our aging infrastructure and community is susceptible to these occurrences.

Severe Weather: Our community has an aging population that is susceptible to extreme heat and weather. It has been vulnerable to severe weather events over the past several years. In particular, high winds have caused considerable damage.

Indicator	Number	Percent
Families in poverty	113	3.5%
People with disabilities	1,122	9%
People over 65 years	2,197	17.5%
People under 5 years	798	6.4%
People of color	4,577	36.4%
Black	280	2.2%
Native American	134	1.1%
Hispanic	3,902	31.1%
Difficulty with English	214	1.8%
Households with no car	411	8.3%
Mobile homes	0	0%

Data are from the U.S. Census Bureau, American Community Survey. See methods for more information.

The community evaluated whether vulnerability, and subsequently the potential impacts, in hazard-prone areas had increased, decreased, or remained the same for each natural hazard identified in this Hazard Mitigation Plan. Climate change, infrastructure expansion, and economic shifts that can affect vulnerability were considered. For example, if planned development is in an identified hazard area or is not built to the updated building codes, it may increase the community's vulnerability to future hazards and disasters. On the other hand, if development occurred with mitigation practices in place, the vulnerability may have remained the same or decreased. Additionally, shifting demographics were taken into consideration when assessing development trends.

Jurisdiction-Specific Climate Change Vulnerability and Impacts

The table below outlines if climate change, as assessed by the local planning team, has increased or decreased the municipality's vulnerability/exposure, and thereby the potential impacts, to each natural hazard over the past five (5) years (**Current Vulnerability**), and the effect of climate change in the future probability of occurrence and impacts (**Future Vulnerability**) from each natural hazard.

Future studies are needed to better understand the impact of climate change on the community's assets.

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Increased
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Increased
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Increased
Tornado	Increased
Wildfire (Wildfire Smoke)	Remained the Same

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	No Change is Anticipated
Earthquake	No Change is Anticipated
Flood (Riverine, Urban, Shoreline)	Increase
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Increase
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Increase
Tornado	Increase
Wildfire (Wildfire Smoke)	No Change is Anticipated

Jurisdiction-Specific Changes (or Expected Changes) in Development Trends in Hazard-Prone Areas

The table below outlines if development, as assessed by the local planning team, over the past five (5) years (**Current Vulnerability**) has increased or decreased the jurisdiction's vulnerability / exposure, and thereby the potential impacts, to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts (**Future Vulnerability**) from these natural hazards.

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Increased
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Remained the Same
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Remained the Same
Tornado	Increased
Wildfire (Wildfire Smoke)	Remained the Same

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	No Change is Anticipated
Earthquake	No Change is Anticipated
Flood (Riverine, Urban, Shoreline)	Increase
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	No Change is Anticipated
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	No Change is Anticipated
Tornado	No Change is Anticipated
Wildfire (Wildfire Smoke)	No Change is Anticipated

Riverside is an older community and as such it makes the community vulnerable to hazards. Public Safety buildings are in need of repair/replacement due to age. They are vulnerable to weather and environmental issues.

Hazard Risk Ranking

The *Hazard Risk Ranking Table* below presents the ranking of the hazards of concern. Hazard area extent and location maps are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

TABLE: HAZARD RISK RANKING	
Rank	Hazard Type
1	Flood
2	Severe Weather
3	Severe Winter Weather
4	Tornado
5	Earthquake
6	Drought
7	Dam Failure

New Mitigation Actions

The following are new mitigation actions created during the 2024 update.

Action R-5.23

Mitigation Action #23: Building Code Update - ICC 2024					
Lead Agency/Department Organization: Village Administration / Community Development	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund Building Resilient Infrastructure and Communities (BRIC) FEMA Public Assistance (PA) FEMA grant, BRIC grant requested	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Earthquake, Flood (Riverine, Urban, Coastal/Shoreline), Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds), Severe Winter Weather (Ice Storm, Heavy Snow, Blizzards, Extreme Cold), Tornado
Year Initiated		2024			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,3,6			
Applicable Objective		2,6,9,10,12			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Building Code Update - ICC 2024			
Actual Completion Date or Ongoing Indefinite					

Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N
---	---

Action R-5.24

Mitigation Action #24: Implement actions to enhance communications in emergencies as part of the Village's Climate Action and Resilience Plan					
Lead Agency/Department Organization: Village Administration / Community Development	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) FEMA Public Assistance (PA)	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline), Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds), Severe Winter Weather (Ice Storm, Heavy Snow, Blizzards, Extreme Cold)
Year Initiated		2025			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,4,5,6			
Applicable Objective		2,4,5,6,8			
Cost Analysis (Low, Medium, High)		Low			

Priority and Level of Importance (Low, Medium, High)	Low
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Low
Action/Implementation Plan and Project Description:	Implement actions to enhance communications in emergencies as part of the Village's Climate Action and Resilience Plan
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N

Action R-5.25

Mitigation Action #25: Purchase of a large brush and wood chipper					
Lead Agency/Department Organization: Village Administration / Public Works	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) FEMA Public Assistance (PA)	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds), Severe Winter Weather (Ice Storm, Heavy Snow, Blizzards, Extreme Cold), Tornado

Year Initiated	2024
Applicable Jurisdiction	Village of Riverside
Applicable Goal	1,2,3,4,5,6
Applicable Objective	1,2,3,8,13
Cost Analysis (Low, Medium, High)	Medium
Priority and Level of Importance (Low, Medium, High)	Medium
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High
Action/Implementation Plan and Project Description:	Purchase of a large brush and wood chipper
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N

Action R-5.26

Mitigation Action #26: Install Back-Up Generators					
Lead Agency/Department Organization: Village Administration / Public Works	Supporting Agencies/Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund State Special Funds Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC)	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds), Severe Winter Weather (Ice Storm, Heavy

			FEMA Public Assistance (PA)		Snow, Blizzards, Extreme Cold), Tornado
Year Initiated	2026				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3,4,5,6				
Applicable Objective	1,2,5				
Cost Analysis (Low, Medium, High)	Medium				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				
Action/Implementation Plan and Project Description:	Install back-up generators at train station, public works facilities, and recreation center to use as warming and cooling centers in the future.				
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N				

Action R-5.27

Mitigation Action #27: Trailer Mounted Portable Generator					
Lead Agency/Department Organization: Village Administration / Public Works	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund Hazard Mitigation Grant Program (HMGP) Building Resilient	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Severe Weather (Extreme Heat,

			Infrastructure and Communities (BRIC) FEMA Public Assistance (PA)		Lightning, Hail, Fog, High Winds), Severe Winter Weather (Ice Storm, Heavy Snow, Blizzards, Extreme Cold)
Year Initiated		2025			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,3,5,6			
Applicable Objective		1,2,3,6,8			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		Building Code Update - ICC 2024			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		N			

Action R-5.28

Mitigation Action #28: Erosion control on Riverside Road along the Des Plaines River.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: General Fund Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) FEMA Public Assistance (PA) Other-State grant/funding	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline), Severe Winter Weather (Ice Storm, Heavy Snow, Blizzards, Extreme Cold)
Year Initiated		2027			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		1,2,3			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Erosion control on Riverside Road along the Des Plaines River.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority		N			

Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	
--	--

Action R-5.29

Mitigation Action #29: Purchase mobile and portable radios for police, fire and public safety personnel as part of our unified command structure response.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) FEMA Public Assistance (PA)	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Dam and Levee Failure, Drought, Earthquake, Flood (Riverine, Urban, Coastal/Shoreline), Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds), Severe Winter Weather (Ice Storm, Heavy Snow, Blizzards, Extreme Cold), Tornado
Year Initiated		2025			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		2,3,4,5,6			
Applicable Objective		1,2			
Cost Analysis (Low, Medium, High)		Medium			
Priority and Level of Importance (Low, Medium, High)		High			

Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High
Action/Implementation Plan and Project Description:	Purchase mobile and portable radios for police, fire and public safety personnel as part of our unified command structure response.
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N

Action R-5.30

Mitigation Action #30: Groveland Sewer Separation Project					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/Organizations: Army Corp of Engineers MWRD	Estimated Cost: High	Potential Funding Source: General Fund Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) Possible federal appropriation through Community Grants	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline)

			submission and possible partnership with MWRD Federal Fundings or Partnership with MWRD		
Year Initiated		2024			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		1,2,3,5,9,12			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		Groveland Sewer Separation Project			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		N			

Action R-5.31

Mitigation Action #31: Installation of a new tornado siren					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source:	Estimated Projected	Hazard(s) Mitigated: Tornado

			General Fund Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) FEMA Public Assistance (PA)	Completion Date: Long-term	
Year Initiated		2024			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,3,			
Applicable Objective		1,2,5			
Cost Analysis (Low, Medium, High)		Medium			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		Installation of a new tornado siren			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		N			

Ongoing Mitigation Actions

The following are ongoing actions with no definitive end or that are still in progress. During the 2024 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

Action R-5.1

Mitigation Action #1: Test reverse 911 emergency notification system CodeRED					
Lead Agency/Department Organization: Fire Dept.	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund, HMGP, BRIC	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated		2014			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,3,6			
Applicable Objective		1,5			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		The Village has upgrade their system to Everbridge.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action R-5.2

Mitigation Action #2: Implement FEMA CRS evaluation.					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source:	Estimated Projected	Hazard(s) Mitigated: Flooding

			General Fund	Completion Date: Short-term	
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3,5				
Applicable Objective	3, 4, 5, 6, 7, 9, 10, 11, 13				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				
Action/Implementation Plan and Project Description:	On 2/26/15 the Village received our compliance letter from IDNR. On 9/21/15 the Village met with IDNR to discuss joining the CRS program. No further action has been taken.				
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O				

Action R-5.3

Mitigation Action #3: Join NOAA Storm Ready Program.					
Lead Agency/Department Organization: Fire Dept.	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Severe Weather, Tornado
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				

Applicable Goal	1,2,3,4,5,6
Applicable Objective	3, 4, 5, 6, 7, 9, 10, 11, 13
Cost Analysis (Low, Medium, High)	Low
Priority and Level of Importance (Low, Medium, High)	Medium
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium
Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action R-5.4

Mitigation Action #4: Olmstead watershed plan (Improvement #7)					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: \$3,400,000	Potential Funding Source: Grant/sewer/water fees , BRIC, HMGP, FMA	Estimated Projected Completion Date: 2027	Hazard(s) Mitigated: Flooding
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3				
Applicable Objective	1, 6, 9				
Cost Analysis (Low, Medium, High)	Medium				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				

Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action R-5.5

Mitigation Action #5: Olmstead sewer separation plan (Improvement #8)					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: \$1.6 million; Medium	Potential Funding Source: Grant/sewer fees, BRIC, HMGP, FMA	Estimated Projected Completion Date: 2027	Hazard(s) Mitigated: Flooding
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3				
Applicable Objective	1, 6, 9				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed;	O				

R = Want Removed from Annex; X = No Action Taken/Delayed	
--	--

Action R-5.6

Mitigation Action #6: Longcommon sewer separation & storage vault plan (Improvement #4)					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: \$3.5 million; Medium	Potential Funding Source: Grant/sewer fees, BRIC, HMGP, FMA	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,3			
Applicable Objective		1, 6, 9			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action R-5.7

Mitigation Action #7: Nuttall sewer separation plan (Improvement #5)

Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: \$1,000,000; Medium	Potential Funding Source: Grant/sewer fees, BRIC, HMGP, FMA	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,3			
Applicable Objective		1, 6, 9			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action R-5.10

Mitigation Action #10: Maplewood watershed proposed relief (Improvement #3)					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: \$600,000; High	Potential Funding Source: Grant/sewer fees, BRIC, HMGP, FMA	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flooding

Year Initiated	2014
Applicable Jurisdiction	Village of Riverside
Applicable Goal	1,2,3
Applicable Objective	1, 6, 9
Cost Analysis (Low, Medium, High)	Low
Priority and Level of Importance (Low, Medium, High)	Medium
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium
Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action R-5.11

Mitigation Action #11: Rear yard storm sewer connections (Improvement #6)					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: \$75,000 per city block; High	Potential Funding Source: Grant/sewer fees, BRIC, HMGP, FMA	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flooding
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3				
Applicable Objective	1, 6, 9				
Cost Analysis (Low, Medium, High)	Low				

Priority and Level of Importance (Low, Medium, High)	Medium
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium
Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action R-5.12

Mitigation Action #12: Where appropriate, support retrofitting, purchasing, or relocating structures in hazard-prone areas to prevent future damage. Give priority to properties with exposure to repetitive losses.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: FEMA Hazard Mitigation Grants, BRIC, HMGP, FMA	Estimated Projected Completion Date: Long-term (depending on funding)	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3				
Applicable Objective	7,13				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				

Action/Implementation Plan and Project Description:	Working with Army Corps and IDNR as well as CCDHS for analysis.
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action R-5.13

Mitigation Action #13: Continue to support the countywide actions identified in this plan.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short- and Long-term	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,5				
Applicable Objective	All				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion;	O				

O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	
---	--

Action R-5.14

Mitigation Action #14: Actively participate in the plan maintenance strategy identified in this plan.					
Lead Agency/Department Organization: EMRS, Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated		2014			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,5			
Applicable Objective		3,4,6			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action R-5.15

Mitigation Action #15: Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term and Ongoing	Hazard(s) Mitigated: Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,5			
Applicable Objective		4,6,9			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action R-5.16

Mitigation Action #16: Where feasible, implement a program to record high water marks following high-water events.

Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund, FEMA Public Assistance (PA)	Estimated Projected Completion Date: Long Term	Hazard(s) Mitigated: Flooding, Severe Weather
Year Initiated		2014			
Applicable Jurisdiction		Village of Riverside			
Applicable Goal		1,2,5			
Applicable Objective		3,6,9			
Cost Analysis (Low, Medium, High)		Medium			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action R-5.17

Mitigation Action #17: Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date:	Hazard(s) Mitigated: All

				Short-term and ongoing	
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,5				
Applicable Objective	3,4,6,10,13				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O				

Action R-5.18

Mitigation Action #18: Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village's regulatory, financial and technical capability to implement mitigation actions.					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: CIP Component of General Fund (if implemented)	Estimated Projected Completion Date: Long-term and Ongoing	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,5				

Applicable Objective	1,2,7
Cost Analysis (Low, Medium, High)	High
Priority and Level of Importance (Low, Medium, High)	Medium
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High
Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action R-5.19

Mitigation Action #19: Install the Groveland flood wall					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Over \$7,000,000	Potential Funding Source: Funded through Army Corp. and MWRD	Estimated Projected Completion Date: 2027	Hazard(s) Mitigated: Flooding
Year Initiated	2019				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3				
Applicable Objective	2,7				
Cost Analysis (Low, Medium, High)	Funding secured				
Priority and Level of Importance (Low, Medium, High)	High				

Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Potential removal of homes from floodplain, significantly diminish flood damage/issues High - Project will provide an immediate reduction of risk exposure for life and property.
Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action R-5.21

Mitigation Action #21: Implement the Groveland Avenue Levee Improvements					
Lead Agency/Department Organization: MWRD	Supporting Agencies/ Organizations: Village Administration	Estimated Cost: \$7,200,000	Potential Funding Source: General Fund, MWRD	Estimated Projected Completion Date: 2027	Hazard(s) Mitigated: Dam/Levee Failure, Flooding
Year Initiated	2019				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3				
Applicable Objective	2,3,7				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)					
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)					
Action/Implementation Plan and Project Description:	ID: Riverside 11 Contract: 18-IGA-20 Watershed: Lower Des Plaines				

	<p>Location: Riverside, IL</p> <p>The Groveland Avenue levee will be improved by raising the levee with a sheet pile floodwall. A pumping station will be built to drain the land side of the levee. An adjacent street will be raised or protected by additional flood walls. The village will enter a project partnership agreement with the Army Corps of Engineers as its local sponsor. MWRD will enter into an intergovernmental agreement with the Village to provide the non-federal share of the design and construction costs.</p>
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action R-5.22

Mitigation Action #22: Implement the Green Infrastructure Project					
Lead Agency/Department Organization: MWRD	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: General Fund, MWRD	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flooding
Year Initiated	2019				
Applicable Jurisdiction	Village of Riverside				
Applicable Goal	1,2,3				
Applicable Objective	2,3,13				
Cost Analysis (Low, Medium, High)	Medium				
Priority and Level of Importance (Low, Medium, High)	Low				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Low				

Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Completed Actions

Completed Mitigation Actions - An archive of all identified and completed projects, including completed actions since 2014.

Completed Action Items
Scottswood sewer separation plan (Improvement #2)
Railroad watershed proposed outlet (Improvement #1)
Install the Railroad Drainage Outlet

Future Needs to Better Understand Risk/Vulnerability

Grants for facility, infrastructure and network enhancements.

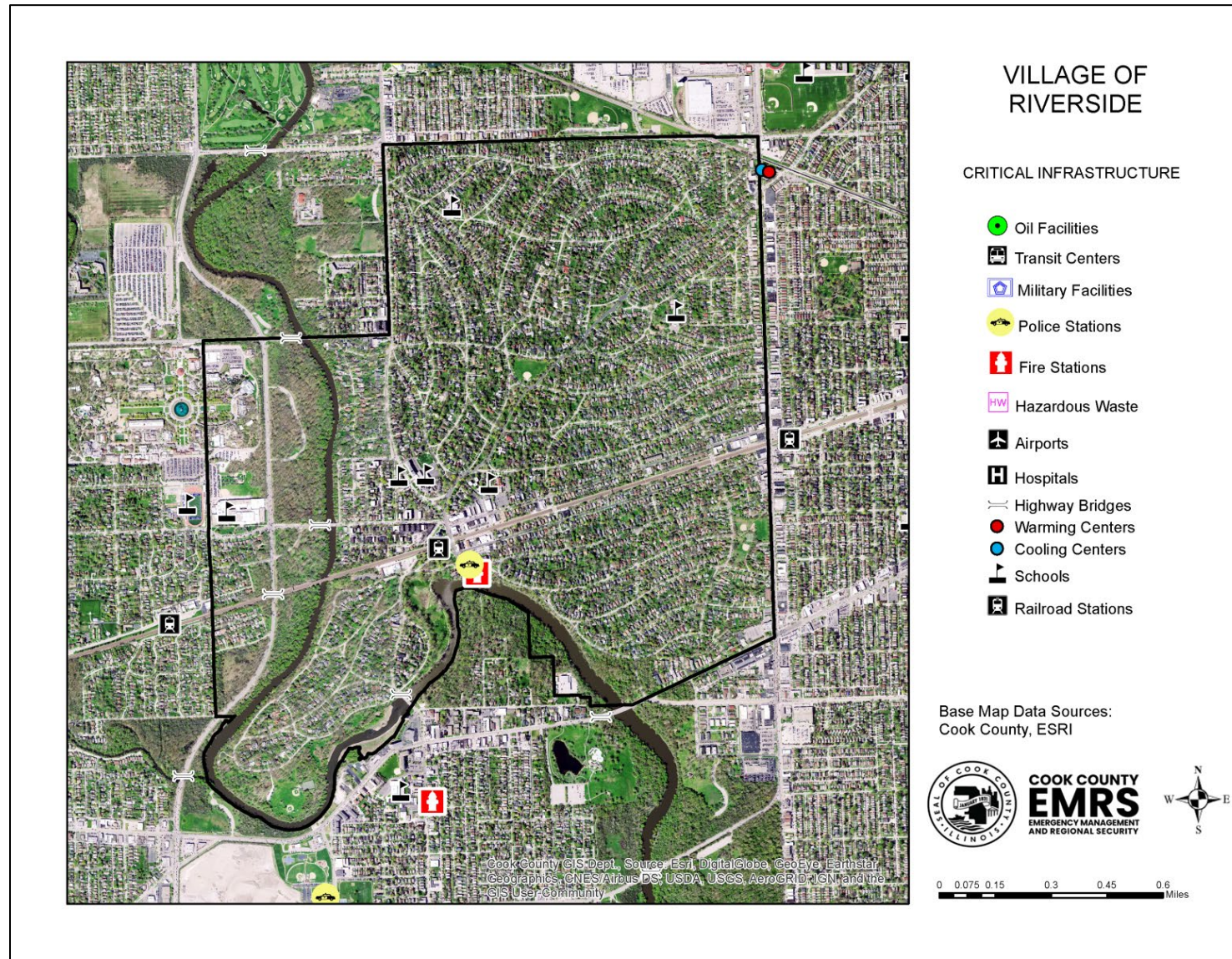
Grants to installation of Village wide fiber network that would interconnect Village facilities.

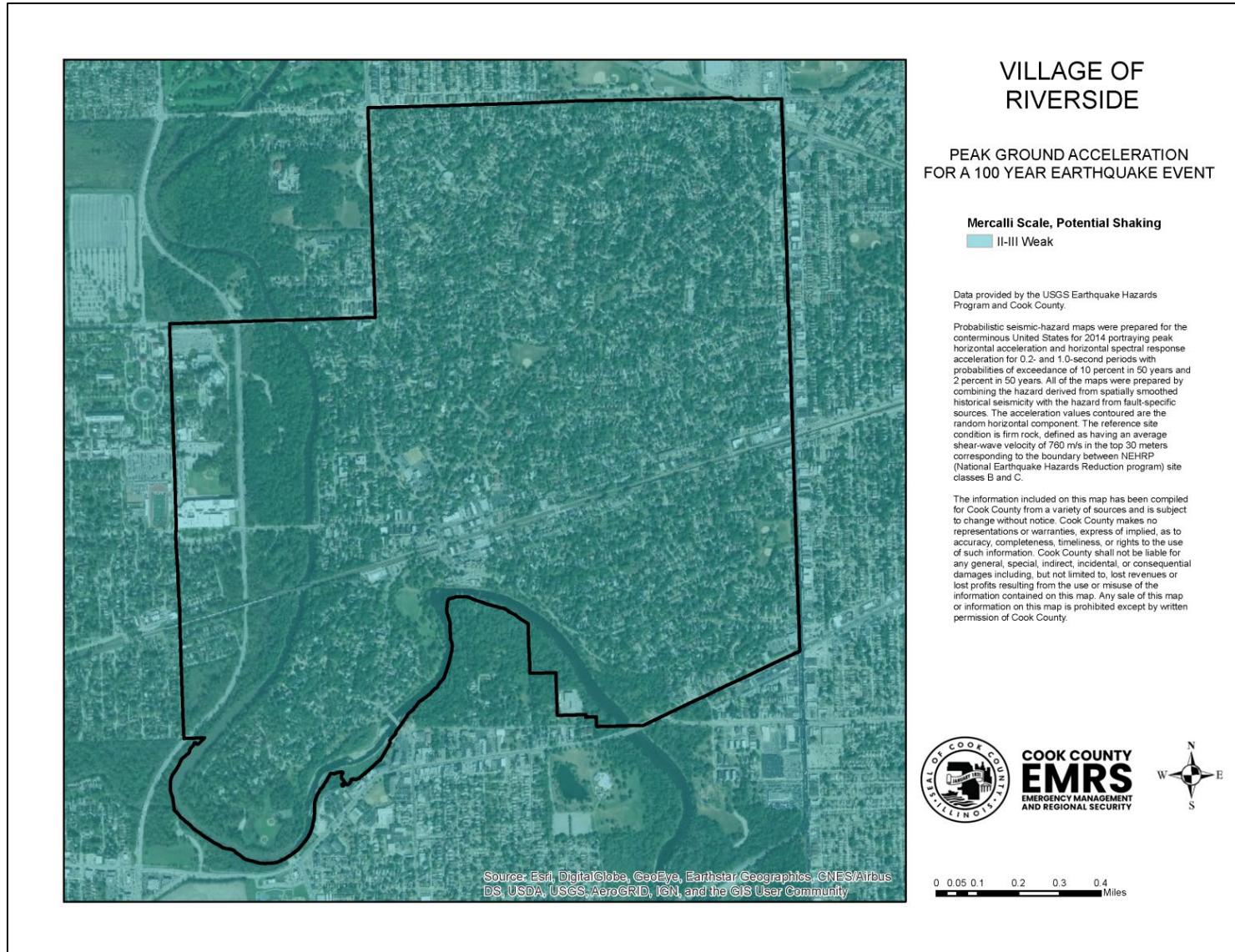
Grant for Building Code rewrite and updates.

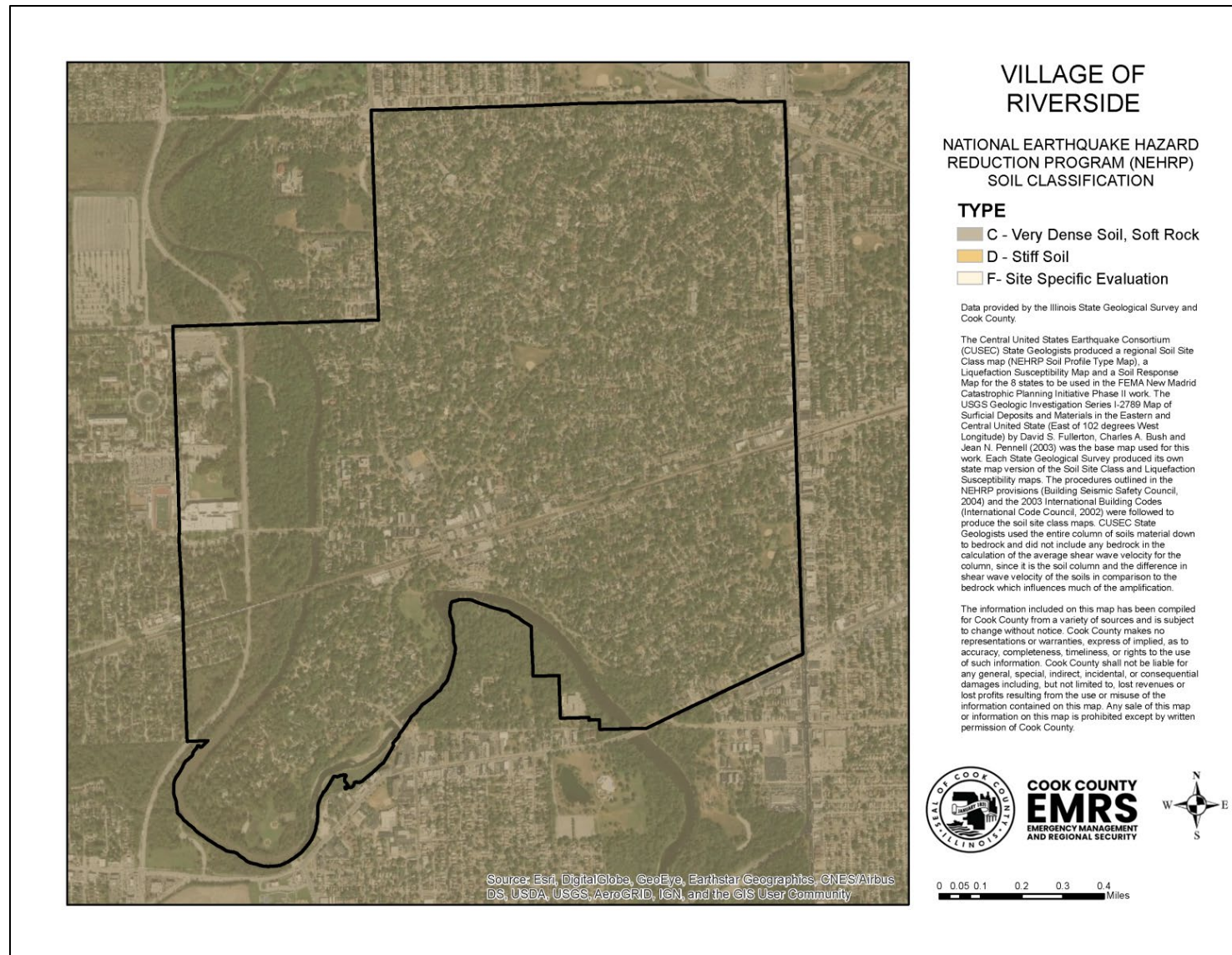
Additional Comments

No additional comments at this time.

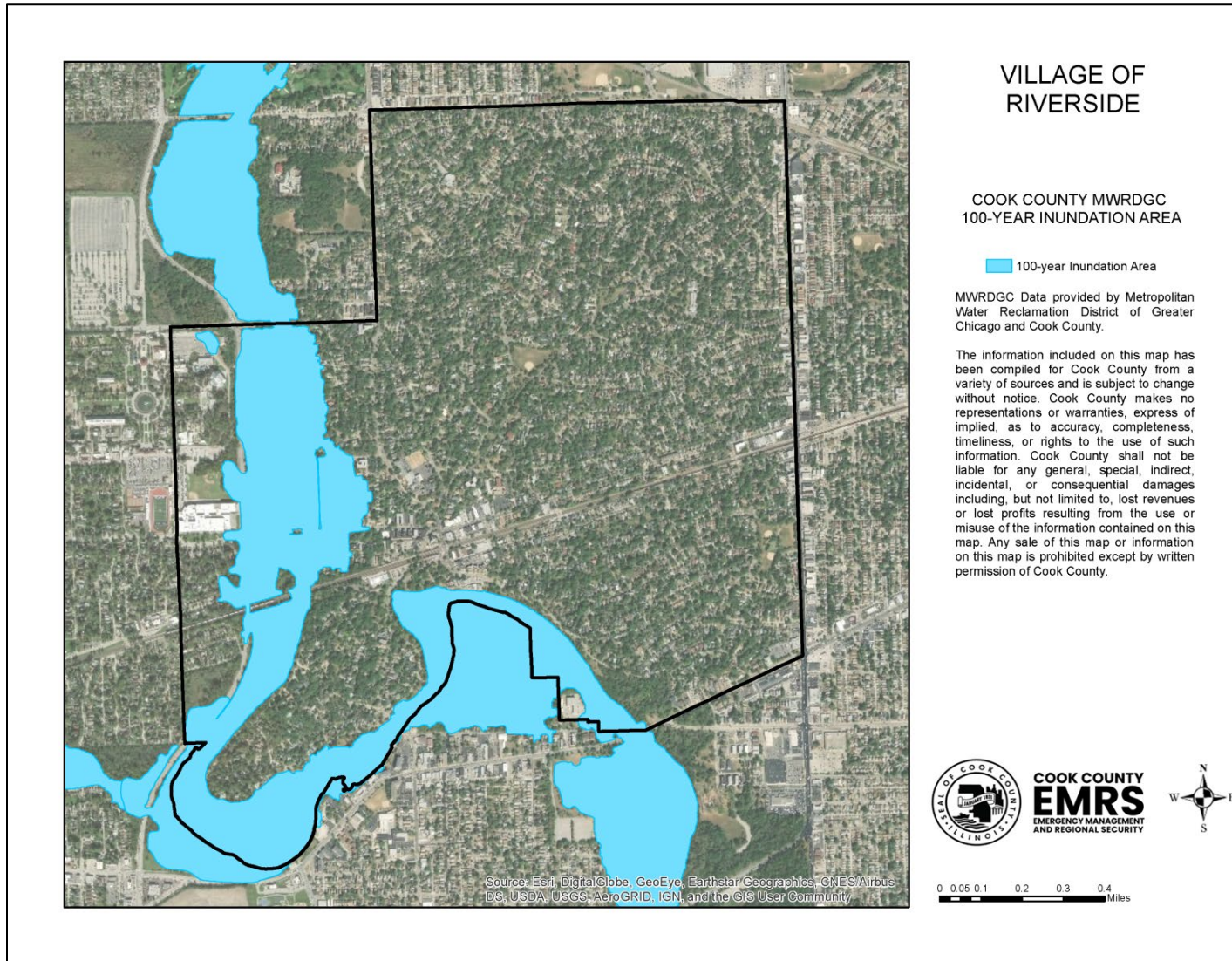
Hazard Mapping

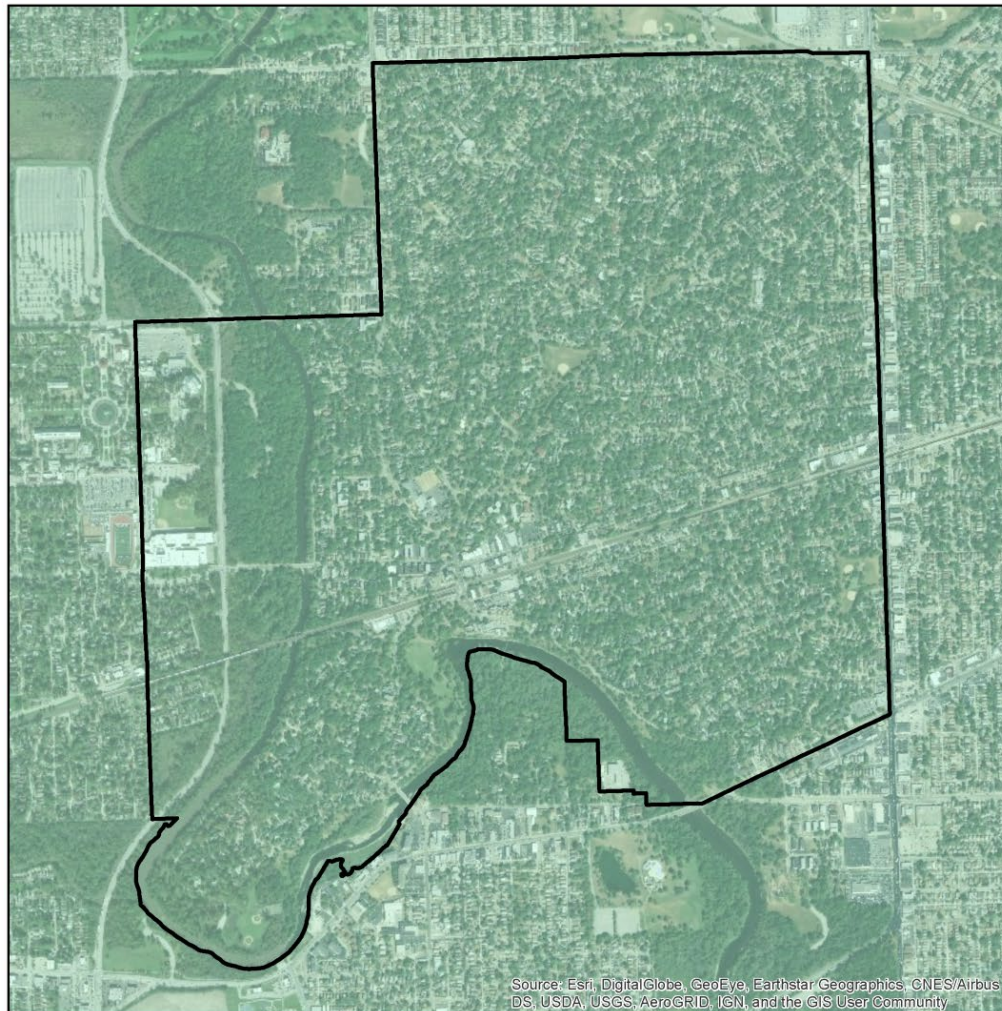






DISCLAIMER: The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps can be obtained from <http://www.fema.gov>.





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

VILLAGE OF RIVERSIDE

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

high
low
very low

Data provided by the Illinois State Geological Survey and Cook County.

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-2789 Map of Surficial Deposits and Materials in the Eastern and Central United State (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean N. Pennell (2003) was the base map used for this work. Each State Geological Survey produced its own state map version of the Soil Site Class and Liquefaction Susceptibility maps. The procedures outlined in the NEHRP provisions (Building Seismic Safety Council, 2004) and the 2003 International Building Codes (International Code Council, 2002) were followed to produce the soil site class maps. CUSEC State Geologists used the entire column of soils material down to bedrock and did not include any bedrock in the calculation of the average shear wave velocity for the column, since it is the soil column and the difference in shear wave velocity of the soils in comparison to the bedrock which influences much of the amplification.

The information included on this map has been compiled for Cook County from a variety of sources and is subject to change without notice. Cook County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. Cook County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of Cook County.



COOK COUNTY
EMRS
EMERGENCY MANAGEMENT
AND REGIONAL SECURITY



0 0.05 0.1 0.2 0.3 0.4
Miles

