

**COOK COUNTY  
MULTI-JURISDICTIONAL  
HAZARD MITIGATION PLAN  
VOLUME 2 - Municipal Annexes**

**Countryside Annex**

**FINAL**

July 2019

Prepared for:



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## Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact
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## Jurisdiction Profile

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

- **Date of Incorporation:** 1960
- **Current Population:** 5,954 as of 2018 US Census estimates.
- **Population Growth:** Countryside has seen a relatively steady population with about a 1% increase from 2010 to 2016 and the trend is projected to remain flat or potentially a slight upturn in residency.
- **Location and Description:** The City of Countryside is located in Cook County, Illinois, northwest of Interstate 55 (Stevenson Expressway) and Interstate 294 (Tri-State Toll way) in the Chicago Metropolitan Region. Located just 15 miles from the Chicago Loop and within 20 miles of O’Hare Airport and 10 miles from Midway Airport. Historic Route 66 (Joliet Road) travels through the southern area of the municipality and intersects with La Grange Road (Route 12, 20, 45). The City of Countryside encompasses 2.88 square miles and is bordered by Western Springs and LaGrange to the north, Willow Springs and Hodgkins to the south, McCook to the east, and Indian Hear Park and Burr Ridge to the west.
- **Brief History:** A reflection on the City’s name, the country land in and around Countryside was originally inhabited by the Potawatomie Native American Indians and later by early American pioneers in the beginning of the 19th century. Early settlers settled in the Countryside area in 1833. The area remained large expanses of rural farmland until the Great Chicago Fire of 1871, when the fire sent thousands of City dwellers into what is now the West Suburban Chicago Region. Despite the settlement of these early inhabitants, the area largely remained a quiet farming community until the post-World War II era when suburban areas such as Countryside began to experience explosive growth. Countryside and many of its Western Suburban neighbors sustained similar housing booms as City residents began to construct new homes in the area. The City of Countryside was officially incorporated in 1960 with a population of about 2,000. Among the first orders of business for the new city was street construction and building a water distribution system, both of which were developed in the 1960s. The construction of the Stevenson Expressway in the mid-1960s, when combined with the heavily traveled La Grange Rd., also created a great deal of retail and industrial growth in and around Countryside through the 1980s, including the construction of the landmark 548,000 sq. ft. Countryside Plaza.
- **Climate:** Countryside’s weather is typical of the Chicago regional weather and is subject to rain and snow. The yearly average temperature is 59.3°F with an average precipitation of 3.3” per month
- **Governing Body Format:** The City of Countryside is an Illinois home rule community with a City Administrator form of government. The City’s Mayor presides over the City Council, which includes six aldermen, who are elected from the City’s three wards. All of the elected officials serve four-year terms, with the Aldermen being elected by the voters in their specific wards in alternating two-year elections. This body will assume the responsibility for the adoption and implementation of this plan. The City Council also determines the City’s annual budget, allocates funds for capital improvement projects and addresses issues of specific concern to the

Countryside community. Countryside operates 7 departments including City Administration, City Clerk's Office, Community Development, Public Works Department, Emergency Services and Disaster Agency, Police Department, and Water Department. City staff members and thirteen committees and commissions also advise the City Council.

- **Development Trends:** The city continues to see growth and revitalization in its current business community. In 2014 the city reached 98% completion and occupancy of the new City Center development at the intersection of LaGrange and Joliet Road. The city is working towards diversification of its business community base from auto dealerships to a more broad based business community and outlined in the City's comprehensive plan, vision for 2024. Future growth opportunities and development within the City will be managed and identified within the comprehensive plan and as determined by the City Council. Additionally, Countryside is making some smaller changes for residents such as installing high definition video cameras at two parks in Countryside and partnering with the Park District of LaGrange to allow Countryside residents to receive park district services.

## 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.

<b>TABLE: LEGAL AND REGULATORY CAPABILITY</b>					
	<b>Local Authority</b>	<b>State or Federal Prohibitions</b>	<b>Other Jurisdictional Authority</b>	<b>State Mandated</b>	<b>Comments</b>
<b>Codes, Ordinances &amp; Requirements</b>					
Building Code	Yes	No	No	Yes	City Code: Title 8 Chapter 1 thru 13, 1/22/2014
Zonings	Yes	No	No	Yes	City Code: Title 10 Chapter 1 thru 15, 1/22//2014
Subdivisions	Yes	No	No	No	City Code: Title 9 Chapter 1 thru 4, 1/22/2014
Stormwater Management	No	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA.
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	City Code: Title 8 Chapter 1 thru 13, 1/22/2014
Public Health and Safety	Yes	No	Yes	Yes	City Code: Title 6 Chapter 1 thru 11, 1/22/2014
Environmental Protection	No	No	No	No	
<b>Planning Documents</b>					
General or Comprehensive Plan	No	No	No	No	Comprehensive Plan Vision for 2024 - 2034
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					Yes - Land Use Yes - Natural Resources Yes - Development
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	No	No	Yes	No	Regional storm water impacts are managed by MWRD. The City lies within the Des Plaines River watershed planning area of MWRD's comprehensive Stormwater Master Planning Program.
Capital Improvement Plan	Yes	No	No	No	Contained in Comprehensive Plan
<i>What types of capital facilities does the plan address?</i>					Water distribution streets/alleys, street lighting, sidewalks
<i>How often is the plan revised/updated?</i>					Annually

Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	Yes	No	Yes	Yes	Within Comprehensive Plan
Shoreline Management Plan	No	No	No	No	
<b>Response/Recovery Planning</b>					
Comprehensive Emergency Management Plan	Yes	No	No	Yes	Ordinance 05-19-O; adopted 0525-2005
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County DHSEM Preparing THIRA
Terrorism Plan	Yes	No	Yes	Yes	Cook County DHSEM
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	Yes	No	Yes	No	Cook County DHSEM
Public Health Plans	No	No	Yes	No	Cook County DPH

**TABLE: FISCAL CAPABILITY**

<b>Financial Resources</b>	<b>Accessible or Eligible to Use?</b>
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
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
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<b>TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY</b>		
<b>Staff/Personnel Resources</b>	<b>Available?</b>	<b>Department/Agency/Position</b>
Planners or engineers with knowledge of land development and land management practices	Yes	Frank Novotny & Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	Frank Novotny & Associates and TPI Building Code Consultants
Planners or engineers with an understanding of natural hazards	Yes	Frank Novotny & Associates
Staff with training in benefit/cost analysis	Yes	
Surveyors	No	
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Countryside Department of Homeland Security and Emergency Management - Coordinator
Grant writers	Yes	Assistant City Administrator / Economic Development Coordinator

<b>TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE</b>	
What department is responsible for floodplain management in your jurisdiction?	Building Department
Who is your jurisdiction’s floodplain administrator? (department/position)	Building Department / Frank Novotny & Associates
Are any certified floodplain managers on staff in your jurisdiction?	No however a member of Frank Novotny & Associates will be seeking certification.
What is the date of adoption of your flood damage prevention ordinance?	08-09-0, 3-12-2008

When was the most recent Community Assistance Visit or Community Assistance Contact?	4/27/1999
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes – shows 100 Year plan
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?	No
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?	No

**TABLE: COMMUNITY CLASSIFICATIONS**

	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection/ISO	Unknown	Unknown	Unknown
StormReady	Yes	StormReady Community	June 2005
Tree City USA	No	N/A	N/A

## Jurisdiction-Specific Natural Hazard Event

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: None
- Number of FEMA-Identified Severe Repetitive Loss Properties: None
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: None

Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Flooding	FEMA-4116-DR-4116	4/26/2013	\$1,166.59 Submitted \$0.00 Reimbursed
Severe Winter Storm and Snowstorm	FEMA-1960-DR-1960	1/31/2011	\$26,088.33 Submitted \$19,566.17 Reimbursed
Flooding	FEMA-1935-DR-1935	7/19/2010	\$0.00 Submitted

### Jurisdiction-Specific Hazards and Impacts

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2019 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.

**Flood:** In the City of Countryside, there are several roadways that are prone to flooding during heavy, sustained rainfall. These include the major intersection of 55th/LaGrange. Additionally, several smaller thoroughfares flood, impacting residents' ability to travel, as well as the City's capacity for emergency response.

**Severe Weather:** In 2013, a six-inch tree was blown down and was blocking the road near Oakton Street and Algonquin Road. A four-foot diameter tree was snapped at the base near Golf Road and Washington Road.

**Extreme Heat:** While no recorded extreme heat events have happened, the City recognizes that the increasing summer temperatures will impact the senior community. The City has a senior citizen residential complex at 6406 Joliet Road. This includes several physically disabled residents that might struggle to evacuate if there was a loss of HVAC systems. In addition to heat, a sheltered area for all events with backup power can help protect the community.

**Tornado:** Within the community, there is a mobile home park that would be susceptible to damage in the event of a tornado. While no tornado has touched down in the area, severe weather events have produced high winds in the community.

**Drought:** Within the community, potable water is a concern and would increase if there is a drought.

## 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.

<b>TABLE: HAZARD RISK RANKING</b>		
<b>Rank</b>	<b>Hazard Type</b>	<b>Risk Rating Score (Probability x Impact)</b>
1	Severe Weather	51
2	Tornado	51
3	Severe Winter Weather	48
4	Flood	22
5	Earthquake	16
6	Drought	2
7	Dam Failure	0

## Mitigation Strategies and Actions

The heart of the mitigation plan is the mitigation strategy, which serves as the long-term blueprint for reducing the potential losses identified in the risk assessment. The mitigation strategy describes how the community will accomplish the overall purpose, or mission, of the planning process. In this section, mitigation actions/projects were updated/amended, identified, evaluated, and prioritized. This section is organized as follows:

- New Mitigation Actions - New actions identified during this 2019 update process
- Ongoing Mitigation Actions - Ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.
- Completed Mitigation Actions - An archive of all identified and completed projects, including completed actions since 2014.

The *Hazard Mitigation Action Plan Matrix Table* below lists the actions that make up the jurisdiction’s hazard mitigation plan. The *Mitigation Strategy Priority Schedule Table* identifies the priority for each action.

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX						
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)
<b>Action C8.1</b> —Clear storm drains for stormwater management.						
Ongoing	Severe Weather, Flood	1, 2, 4, 8, 9	City	Low	Corporate Fund	Ongoing
<b>Action C8.2</b> —Continue participation in mutual aid agreements with adjoining jurisdictions and intergovernmental agency partnerships.						
Ongoing	All	1, 5, 8	City, Public Works, Police, EMA, Building Dept.	Low	Corporate Fund	Ongoing
<b>Action C8.3</b> —Continue participation in the NWS Storm Ready program.						
Removed	Severe Weather	1, 5, 6, 8, 11	City	Low	Corporate Fund	Removed
<b>Action C8.4</b> —Maintain existing local flood control measures (ditches, water retention area).						

Ongoing	Flood	9, 12	Public Works	Medium	Corporate Fund	Ongoing
<b>Action C8.5</b> —Maintain outdoor warning systems through preventative maintenance agreement						
Ongoing	Tornado	5, 6, 11	City, EMA	Less than \$10,000; Low	Corporate Fund	Ongoing (Annual) Long-term
<b>Action C8.6</b> —Perform outreach education to the public to promote safety, alert protocols, shelter education and alternative warning systems.						
Ongoing	All	5, 6, 8, 11	City, EMA	Low	Corporate Fund	Ongoing
<b>Action C8.7</b> —Participate in educational drills involving all city employees.						
Ongoing	Earthquake	5, 6, 11	City	Low	Corporate Fund	Ongoing (Annual)
<b>Action C8.8</b> —Update City Emergency Operations, Severe Weather, Pharmaceutical and Public Building Plans.						
Ongoing	All	1, 5, 6, 8	EMA	N/A	N/A	Short-term
<b>Action C8.9</b> —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.						
Ongoing	All	1, 2, 5, 6, 7, 8	DHSEM, City, EMA	Low	Corporate Fund	Long-term
<b>Action C8.10</b> —Consider the city’s involvement within the Community Rating System (CRS).						
Removed	Flood	6, 11	Public Works	Low	Corporate Fund	Removed
<b>Action C8.11</b> —Participate in information gathering and involvement in programs that concentrate on emergency preparedness and education.						
Ongoing	All	5, 8, 11	City	\$2,500	Corporate Fund	Long-term
<b>Action C8.12</b> —Take part in the continued support, implementation, maintenance and revision of Hazard Mitigation plan.						
Ongoing	All	All	City, EMA	Low	Corporate Fund, FEMA, Grant Funding	Short-term, Ongoing
<b>Action C8.13</b> —Encourage the implementation and use of NOAA “All Hazards” radios as supplemental early warning, preparedness and post incident information.						

Removed	Severe Weather, Tornado, Flood, Earthquake	1, 5, 6, 8, 11	City, EMA	Low	Corporate, Grants	Removed
<b>Action C8.14</b> — Establish and continue planning and partnership between governmental agencies, volunteers, Cook County DPH, public agencies.						
Ongoing	All	1, 6, 8	City, County DPH, Lyons Township, Indian Head Park, Hodgkins, Pleasantview Fire, La Grange, La Grange Park	Medium	Corporate Fund, Grants	Ongoing
<b>Action C8.15</b> — Reduce potable water system loss due to leakage, infrastructure failures.						
Ongoing	Drought	1, 2, 13	City, Water Department	Medium	Corporate Fund, Water Fund, Grants	Ongoing
<b>Action C8.16</b> — Upgrade/Expand ditch and water flow culverts.						
Ongoing	Flood	1, 2, 4, 8, 9	City, Water Department	High	Corporate Fund, Water Fund, Grants	Long-term
<b>Action C8.17</b> — Water run-off mitigation from new developments, housing, property redevelopment.						
Ongoing	Flood	3, 4, 8, 9, 10, 13	City	High	Developer, Home Owner, Property Owner	Ongoing
<b>Action C8.18</b> — Maintain and upgrade the city’s BlackBoard Connect (Reverse 911) communications systems.						
Removed	All	5	City	Low	Corporate, E911 Fund	Removed
<b>Action C8.19</b> — Update the municipality’s Emergency Operations Center facility.						



Ongoing	All	1, 2, 5	City	Medium	Corporate, Grants	Long-term
<b>Action C8.20</b> —Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.						
Removed	All	7, 13	City	High	FEMA Hazard Mitigation Grants	Removed
<b>Action C8.21</b> —Actively participate in the plan maintenance strategy identified in this plan.						
Removed	All	3, 4, 6	DHSEM City	Low	General Fund	Removed
<b>Action C8.22</b> —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.						
Ongoing	Flooding	4, 6, 9	City	Low	General Fund	Short-term and ongoing
<b>Action C8.23</b> —Where feasible, implement a program to record high water marks following high-water events.						
Removed	Flooding, Severe Weather	3, 6, 9	City	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Removed
<b>Action C8.24</b> —Create and Launch a Public information Campaign via Social Media and Community Events on mitigation.						
New	All	6	Countryside Police Department	Low	N/A	Ongoing
<b>Action C8.25</b> —Establish newly constructed municipal complex for citizens during natural disasters involving extreme weather and/or loss of power.						
New	Extreme Heat, Snow, Blizzard, Extreme Cold, Tornado, Widespread	5, 12	City of Countryside	Low	City of Countryside	Fall 2019

	Power Outage					
<b>Action C8.26</b> —Implement Plainfield Road flood control.						
New	Flood	9	MWRD	Unknown	Unknown	Unknown
(a) Ongoing indicates continuation of an action that is already in place. Short-term indicates implementation within five years. Long-term indicates implementation after five years.						

TABLE: MITIGATION STRATEGY PRIORITY SCHEDULE							
Action Number	Number of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority (a)
1	5	Medium	Low	Yes	No	Yes	Medium
2	3	Low	Low	Yes	No	Yes	Low
3	5	Low	Low	Yes	No	Yes	Low
4	2	High	High	Yes	No	Yes	Medium
5	3	Medium	Low	Yes	No	Yes	Medium
6	4	Low	Low	Yes	No	Yes	Low
7	3	Low	Low	Yes	No	Yes	Low
8	4	Medium	Low	Yes	No	Yes	Low
9	6	Medium	Low	Yes	No	Yes	Medium
10	2	Low	Low	Yes	No	Yes	Low
11	5	Low	Low	Yes	No	Yes	Low
12	13	Low	Low	Yes	Yes	No	Low
13	5	Low	Low	Yes	Yes	No	Low
14	3	Medium	Medium	Yes	Yes	No	Low
15	3	Medium	High	No	Yes	No	High
16	5	Medium	High	No	Yes	No	High
17	6	Medium	High	No	Yes	No	High
18	1	Medium	Low	No	No	Yes	Medium
19	3	High	High	Yes	Yes	No	High

20	2	High	High	Yes	Yes	No	Medium
21	3	Medium	Low	Yes	Yes	Yes	High
22	3	Medium	Low	Yes	Yes	Yes	High
23	3	Medium	Medium	Yes	Yes	No	Medium
24	1	Low	Low	Yes	No	Yes	Medium
25	2	High	Low	Yes	No	Yes	High
26	1	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

(a) See Chapter 1 for explanation of priorities.

## New Mitigation Actions

The following are new mitigation actions created during the 2019 update.

**Action C-8.24**

<b>Mitigation Action</b>	Create and Launch a Public information Campaign via Social Media and Community Events on mitigation.
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Countryside
<b>Lead Agency/Organization</b>	Countryside Police Department
<b>Supporting Agencies/Organizations</b>	N/A
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Use the best available data, science and technologies to educate the public and to improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types and community development patterns, and the measures needed to protect life safety.</li> </ul>
<b>Potential Funding Source</b>	N/A
<b>Estimated Cost</b>	N/A
<b>Benefits (loss avoided)</b>	Public education would educate the public on what they can do to minimize or avoid losses
<b>Projected Completion Date</b>	Ongoing
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium Priority
<b>Benefit Analysis (Low, Medium, High)</b>	Low—Long-term benefits of the project are difficult to quantify in the short term.
<b>Cost Analysis (Low, Medium, High)</b>	Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
<b>Actual Completion Date</b>	

<b>Recommended Mitigation Action/Implementation Plan and Project Description</b>	
<b>Action/Implementation Plan and Project Description:</b>	Use public education via social media and community events to promote hazard mitigation efforts. It can also be used to educate and to encourage the public to undertake and support hazard mitigation efforts.

**Mitigation Action and Project Maintenance**

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

Mitigated Hazards	
X	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
	Extreme Cold
	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

**Action C-8.25**

<b>Mitigation Action</b>	Establish newly constructed municipal complex for citizens during natural disasters involving extreme weather and/or loss of power.
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Countryside
<b>Lead Agency/Organization</b>	City of Countryside
<b>Supporting Agencies/Organizations</b>	Countryside Police Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures.</li> <li>Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.</li> </ul>
<b>Potential Funding Source</b>	City of Countryside
<b>Estimated Cost</b>	
<b>Benefits (loss avoided)</b>	Avoid loss of life due to extreme weather.
<b>Projected Completion Date</b>	Fall 2019
<b>Priority and Level of Importance (Low, Medium, High)</b>	High priority
<b>Benefit Analysis (Low, Medium, High)</b>	High - Project will provide an immediate reduction of risk exposure for life and property.
<b>Cost Analysis (Low, Medium, High)</b>	Low - The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
<b>Actual Completion Date</b>	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	

Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	
2020		

<b>2021</b>		
<b>2022</b>		
<b>2023</b>		

Mitigated Hazards	
	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	Flood
X	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
X	Snow
X	Blizzard
X	Extreme Cold
	Ice Storms
X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident



**Action C-8.26**

<b>Mitigation Action</b>	Implement Plainfield Road flood control
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Chicago
<b>Lead Agency/Organization</b>	MWRD
<b>Supporting Agencies/Organizations</b>	City of Chicago
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.</li> </ul>
<b>Potential Funding Source</b>	Unknown
<b>Estimated Cost</b>	Unknown
<b>Benefits (loss avoided)</b>	Unknown
<b>Projected Completion Date</b>	Unknown
<b>Priority and Level of Importance (Low, Medium, High)</b>	Unknown
<b>Benefit Analysis (Low, Medium, High)</b>	Unknown
<b>Cost Analysis (Low, Medium, High)</b>	Unknown
<b>Actual Completion Date</b>	Unknown

Recommended Mitigation Action/Implementation Plan and Project Description	
<b>Action/Implementation Plan and Project Description:</b>	ID: CCDTH 4 Contract: 14-112-5C Lower Des Plaines Location: LaGrange; Countryside; McCook; and Lyons Township, IL Description: May include construction of a new trunk sewer along portions of Plainfield Road, 55th Street and East Avenue and stormwater improvements to the McCook Ditch, McCook Ditch Overflow, and McCook Levee. Estimated Construction Cost: TBD

Mitigation Action and Project Maintenance			
Year	Status	Comments	
2019	New	Preliminary Engineering being finalized	
2020			
2021			
2022			
2023			

Mitigated Hazards	
	<b>All Hazards</b>
	Dam/Levee Failure
	Drought
	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
	Extreme Cold
	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

### Ongoing Mitigation Actions

The following are ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

**Action C-8.1**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.1	Clear storm drains for stormwater management.	
Status Description: Yes		O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.2**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.2	Continue participation in mutual aid agreements with adjoining jurisdictions and intergovernmental agency partnerships.	
Status Description: Yes	The City continues to participate in and maintain mutual aid agreements with intergovernmental and mutual aid agreements	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.4**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.4	Maintain existing local flood control measures (ditches, water retention area).	
Status Description: Yes	The City continuously plans and works to maintain and improve local flood control measures.	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.5**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.5	Maintain outdoor warning systems through preventative maintenance agreement.	
Status Description: Yes		O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.6**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.6	Perform outreach education to the public to promote safety, alert protocols, shelter education and alternative warning systems.	
Status Description: Yes	The City uses various platforms to assist with public education, such as Social Media, Blackboard Connect, and reverse 911.	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.7**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.7	Participate in educational drills involving all city employees.	
Status Description: No		X
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.8**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.8	Update City Emergency Operations, Severe Weather, Pharmaceutical and Public Building Plans	
Status Description: Yes	City Emergency Operations plans are subject to continuous review and update.	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.9**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.9	Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.	
Status Description: Yes	The city's Planning and Zoning Board, Building Department, and the City Engineer review building plans and/or zoning variations to conform to BOCA (Building Code) standard	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.11**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.11	Participate in information gathering and involvement in programs that concentrate on emergency preparedness and education.	
Status Description: No	The City has not participated in any programs that concentrate on emergency preparedness and education.	O
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action C-8.12**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.12	Take part in the continued support, implementation, maintenance and revision of Hazard Mitigation plan	
Status Description: Yes	We provide the required updates to the Hazard Mitigation Plan Action Plan matrix.	O
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		



**Action C-8.14**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.14	Establish and continue planning and partnership between governmental agencies, volunteers, Cook County DPH, public agencies.	
Status Description: Yes	The City continues partnering and working with other agencies.	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.15**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.15	Reduce potable water system loss due to leakage, infrastructure failures	
Status Description: Yes	Nearly every year the City does a water main replacement project to replace older deteriorated mains. These mains have either been identified in the City's Water System Analysis Report or by City Staff as high priorities in order to reduce water system losses.	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action C-8.16**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.16	Upgrade/Expand ditch and water flow culverts	
Status Description: Yes	The City has done several projects that expand ditch capacity and improve flow, including the 57th and 58th Street Ditches. In recent years the City has been focusing on residential ditch improvements to improve area drainage.	O
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action C-8.17**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.17	Water run-off mitigation from new developments, housing, property redevelopment.	
Status Description: Yes	Any new construction goes through a process with the Building Department, City Engineer, and if necessary the Planning and Zoning board to ensure it meets standards for water run-off mitigation.	O
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action C-8.19**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.19	Update the municipality’s Emergency Operations Center facility	
Status Description: Yes	The City is constructing a new municipal complex that will serve as the Emergency Operations Center.	O
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action C-8.22**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# C-8.22	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	
Status Description: Yes	The City enforces their SPECIAL FLOOD HAZARD AREAS ordinance, which meets the NFIP minimum requirements. The City has also done floodplain studies that have led to map updates. The City also provides public assistance and information in their City newsletters and on their website when applicable.	O
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

### Completed Mitigation Actions

Countryside has no completed actions at this time.

## Future Needs to Better Understand Risk/Vulnerability

The city will need to continue to review various flood, severe weather and tornado trends to continue to prioritize its efforts for risk identification and additional mitigation activities. The city is currently active in the Strategic National Stockpile/Pharmaceutical Medication Distribution initiative for the Lyons Township area. The city is also served by a tornado warning siren, with coverage as shown on the map on the following page.

## Additional Comments

With the city's proximity to Interstate I-55 and Route 12, 20, 45, the city also needs to be prepared to mitigate events that could result from the commercial traffic that uses those roadways. Also due to the proximity to the I&M Canal and other communities with heavy industrial businesses that process potential hazardous chemicals, mitigation efforts for evacuation and/or shelter in place must also be integrated as part of the all-hazards planning.

## HAZUS-MH Risk Assessment Results

COUNTRYSIDE EXISTING CONDITIONS	
2010 Population	5,895
Total Assessed Value of Structures and Contents	\$3,019,810,369
Area in 100-Year Floodplain	18.94 acres
Area in 500-Year Floodplain	27.21 acres
Number of Critical Facilities	44

HAZARD EXPOSURE IN COUNTRYSIDE						
	Number Exposed		Value Exposed to Hazard		Total	% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents		
<b>Dam Failure</b>						
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%
Touhy	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%
<b>Flood</b>						
100-Year	55	17	\$4,156,931	\$2,078,466	\$6,235,397	0.21%

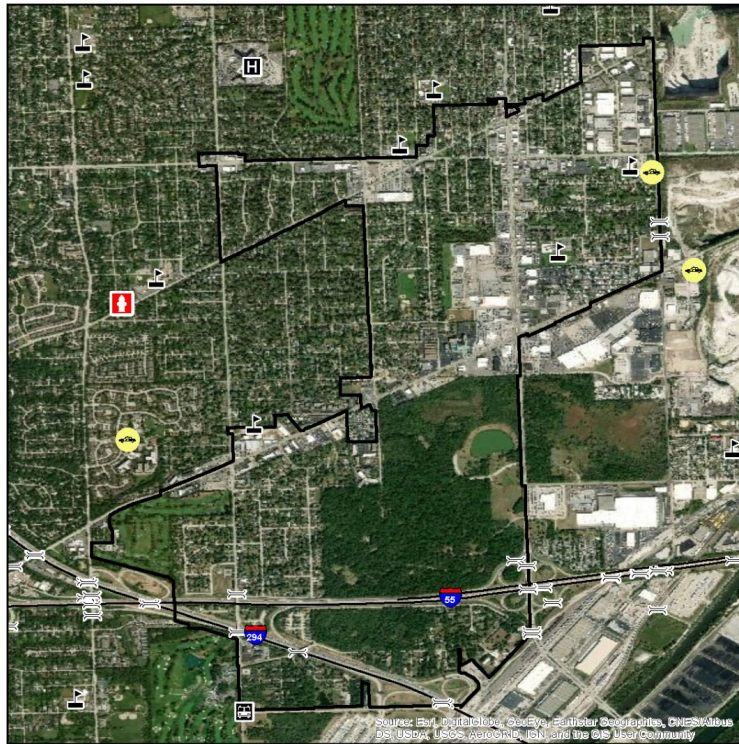
500-Year	72	22	\$5,642,244	\$2,821,122	<b>\$8,463,366</b>	0.28%
<b>Tornado</b>						
100-Year	—	—	\$359,940,512	\$299,141,858	<b>\$659,082,370</b>	21.83%
500-Year	—	—	\$670,615,426	\$554,476,650	<b>\$1,225,092,075</b>	40.57%

ESTIMATED PROPERTY DAMAGE VALUES IN COUNTRYSIDE				
	Estimated Damage Associated with Hazard			% of Total Assessed Value Damaged
	Building	Contents	Total	
<b>Dam Failure</b>				
Buffalo Creek	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #2	\$0	\$0	<b>\$0</b>	0.00%
Touhy	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #3	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #4	\$0	\$0	<b>\$0</b>	0.00%
<b>Earthquake</b>				
1909 Historical Event	\$25,665,285	\$8,560,598	<b>\$34,225,883</b>	1.13%
<b>Flood</b>				
10-Year	\$0	\$0	<b>\$0</b>	0.00%
100-Year	\$259,661	\$86,660	<b>\$346,321</b>	0.01%
500-Year	\$982,009	\$515,753	<b>\$1,497,762</b>	0.05%
<b>Tornado</b>				



100-Year	\$35,994,051	\$29,914,186	<b>\$65,908,237</b>	2.18%
500-Year	\$97,909,852	\$80,953,591	<b>\$178,863,443</b>	5.92%

# Hazard Mapping

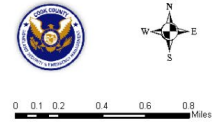


## CITY OF COUNTRYSIDE

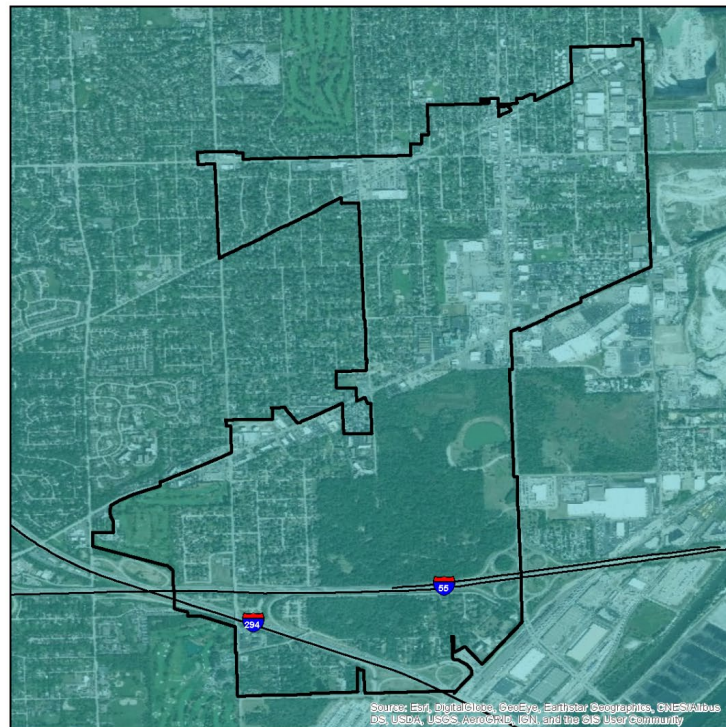
### CRITICAL INFRASTRUCTURE

- Oil Facilities
- Transit Centers
- Military Facilities
- Police Stations
- Fire Stations
- Hazardous Waste
- Airports
- Hospitals
- Highway Bridges
- Warming Centers
- Cooling Centers
- Schools
- Railroad Stations

Base Map Data Sources:  
Cook County, ESRI



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



## CITY OF COUNTRYSIDE

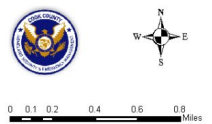
### PEAK GROUND ACCELERATION FOR A 100 YEAR EARTHQUAKE EVENT

- Mercalli Scale, Potential Shaking**
- II-III Weak

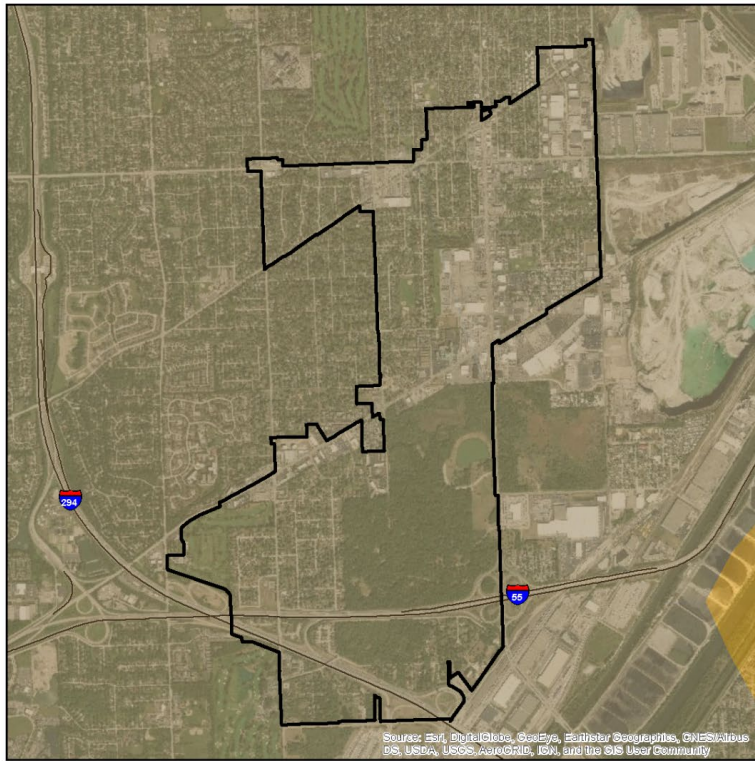
Data provided by the USGS Earthquake Hazards Program and Cook County.

Probabilistic seismic-hazard maps were prepared for the conterminous United States for 2014 portraying peak horizontal acceleration and horizontal spectral response acceleration for 0.2 and 1.0-second periods with probabilities of exceedance of 10 percent in 50 years and 2 percent in 50 years. All of the maps were prepared by combining the hazard derived from spatially smoothed historical seismicity with the hazard from fault-specific sources. The acceleration values contoured are the random horizontal component. The reference site condition is firm rock, defined as having an average shear-wave velocity of 760 m/s in the top 30 meters corresponding to the boundary between NEHRP (National Earthquake Hazards Reduction Program) site classes B and C.

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



**CITY OF  
COUNTRYSIDE**  
NATIONAL EARTHQUAKE HAZARD  
REDUCTION PROGRAM (NEHRP)  
SOIL CLASSIFICATION

- TYPE**
- C - Very Dense Soil, Soft Rock
  - D - Stiff Soil
  - F - Site Specific Evaluation

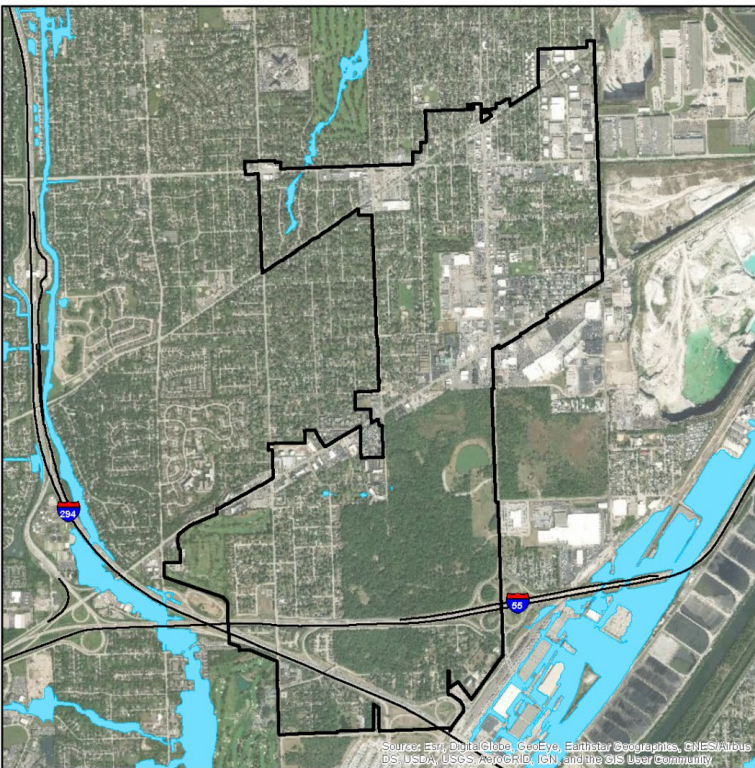
Data provided by the Illinois State Geological Survey and Cook County.

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 States (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush, and Jean N. Parnell (2002) 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.

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



**CITY OF  
COUNTRYSIDE**  
COOK COUNTY MWRDGC  
100-YEAR INUNDATION AREA

- 100-year Inundation Area

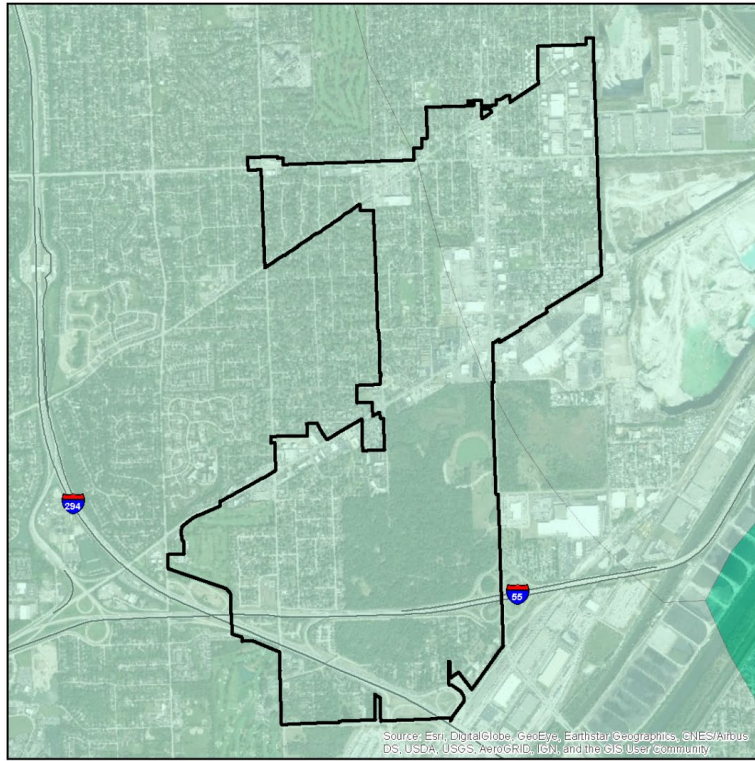
MWRDGC Data provided by Metropolitan Water Reclamation District of Greater Chicago and Cook County.

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**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



**CITY OF COUNTRYSIDE**  
**LIQUEFACTION SUSCEPTIBILITY**

**LIQUEFACTION SUSCEPTIBILITY**  
 high  
 low  
 very low

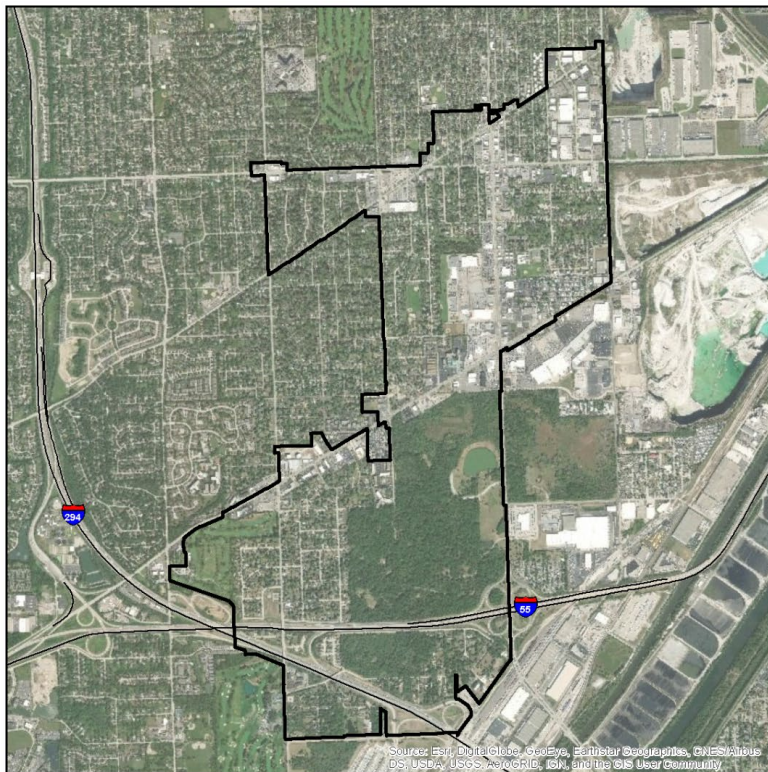
Data provided by the Illinois State Geological Survey and Cook County.

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Types 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-2788 Map of Surficial Deposits and Materials in the Eastern and Central United States (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean N. Pennel (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, 2003) 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.

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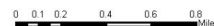
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**CITY OF COUNTRYSIDE**  
**100- AND 500- YEAR TORNADO EVENTS**

**Magnitude**  
 4 (100 year event)  
 5 (500 year event)

Historic tornado data provided by NOAA/NWS showing the initial points and paths of all F4 and F5 events observed from 1950 to 2017.



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