



Cook County Multi-Jurisdictional All Hazards Mitigation Plan 2018 Annual Progress Report

Cook County Overview

Cook County is located in northeastern Illinois on the western shores of Lake Michigan. It is the most populous of Illinois' 102 counties (making up approximately 40 percent of the population of the state), with a 2018 estimated population of 5.2 million. It is the sixth largest county in the state by area, covering 946 square miles. The surrounding counties are Lake and McHenry to the north, Kane and DuPage to the west and Will to the southwest. Lake Michigan is the county's eastern border.

Cook County is the second most populous county in the United States, after Los Angeles County. It contains 134 municipalities, covering about 85 percent of the area of the county. The remaining unincorporated areas are under the jurisdiction of the Cook County Board of Commissioners, a 17-member board elected by district.

Plan Background

The Cook County Multi-Jurisdictional Hazard Mitigation Plan (HMP) was developed under a grant from the Illinois Emergency Management Agency (IEMA) by a planning team of Cook County Department of Homeland Security and Emergency Management (DHSEM) staff and expert consultants, with guidance from a steering committee representing the planning partners and other local stakeholders.

On September 10, 2014, the Cook County Board of Commissioners adopted the first-ever Cook County HMP (Volumes 1 and 2) making it the largest plan of its kind within the U.S. with 115 planning partners. To reduce the impact of a critical incident on the lives, property and economy of those that live in, work in and visit the county, the plan identified the risks of natural hazards facing Cook County, established mitigation goals, evaluated existing mitigation activities and recommended additional mitigation steps. One step includes a plan maintenance strategy to ensure that the HMP remains an active and relevant document, and that the planning partners maintain their eligibility for applicable federal grant funding sources. The HMP's format also allows for updating identified mitigation strategies.

Purpose

The purpose of this report is to provide an annual update on the implementation of the action plan identified in Volume 2 of the HMP. The objective is to ensure that there is a continual and responsive planning process that will keep the HMP dynamic and responsive to the needs and capabilities of all partner jurisdictions. This report discusses the following:

- Review of the action item plan matrix
- Natural hazard events that have occurred within the last year
- Mitigation success stories
- Plan evaluation



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Review of the action item plan matrix

Municipality	# of Action Items	Completed	Not Completed	New	Removed		Municipality	# of Action Items	Completed Action Items	Not Completed	New Action Items	Removed Action Items
Alsip	8	0	4				Dolton	14	0	4		
Arlington Heights	15	1	0				East Hazel Crest	16	0	0		4
Bedford Park	15	6	0		1		Elk Grove Village	16	0	16		
Bellwood	11	2	3				Elmwood Park	11	7	0		
Berkeley	11	1	1		1		Evanston	8	0	0		2
Berwyn	8	0	3				Evergreen Park	10	2	0		1
Blue Island	15	6	2		1		Flossmoor	15	1	4		3
Bridgeview	16	6	7				Ford Heights	16		16		
Broadview	12	2	1				Forest Park	8	0	8		
Brookfield	16	5	0				Forest View	13	1	8		
Burbank	11	1	6				Franklin Park	19	3	2		
Burnham	16	0	9				Glencoe	17	3	0	3	
Calumet City	20	7	6				Glenview	16	11	0	1	
Calumet Park	15	0	8				Glenwood	14	3	4		
Chicago Heights	13	5	2		1		Golf	10	2	0	2	1
Chicago Ridge	21	2	10				Hanover Park	27	11	1		4
Cicero	10	0	4				Harvey	15		15		
Cook County	32	9	2		3		Harwood Heights	8	0	1		
Country Club Hills	17	4	5				Hazel Crest	16	0	2		
Countryside	23	0	1		6		Hickory Hills	15	0	2		3
Crestwood	11	1	5				Hillside	23	6	14		
Dixmoor	14	0	4				Hodgkins	20	3	2	4	1



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Municipality	# of Action Items	Completed Action Items	Not Completed	New Action Items	Removed Action Items		Municipality	# of Action Items	Completed Action Items	Not Completed	New Action Items	Removed Action Items
Hoffman Estates	16	0	0		1		Niles	12	1	0		
Homewood	9	1	2				Norridge	14	1	12		
Indian Head Park	8	0	1				North Riverside	8	0	1		
Inverness	13	0	2				Northbrook	11	0	0		
Justice	18	5	0				Northfield	16	2	6		1
Kenilworth	8	0	2				Northlake	17	7	2		
LaGrange	20	0	0		6		Oak Forest	16	0	0	5	1
LaGrange Park	17	2	3				Oak Lawn	14	3	1		
Lansing	25	6	6				Oak Park	13	2	0		2
Lemont	8	0	1				Olympia Fields	9	0	2		
Lincolnwood	11	5	2				Orland Hills	10		10		
Lynwood	8	0	3				Orland Park	22	2	0	2	
Lyons	13	2	4				Palatine	18	2	3		1
Markham	16	0	2				Palos Heights	15	2	3		
Matteson	16	6	2				Palos Hills	11	6	1		
Maywood	8	1	3				Palos Park	16	3	2		
McCook	9	0	0				Park Ridge	14	0	4		1
Melrose Park	7	1	5				Phoenix	16		16		
Merrionette Park	15	1	11	1			Posen	16	1	7		
Midlothian	19	2	0				Prospect Heights	18	6	4		
Morton Grove	17	2	5		2		Riverdale	13	3	5		
Mount Prospect	18	6	0				Riverside	18	1	8		
Metropolitan Water Reclamation District	22	2	0	5			River Forest	17	4	1		



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River Grove	9	0	2				Stone Park	7	1	1		
Robbins	8	0	0				Streamwood	8	3	1		
Rolling Meadows	12	1	0				Summit	7	0	5		
Rosemont	11	1	4				Thornton	10	1	5		
Sauk Village	9	1	5				Tinley Park	7	0	1		
Schaumburg	15	1	0				Westchester	14	1	1		
Schiller Park	10	2	3				Western Springs	14	1	2		
Skokie	11	3	1				Wheeling	13	6	1	1	
South Barrington	11	1	2				Willow Springs	7	1	0		
South Chicago Hts.	7	2	1				Wilmette	15	6	0	2	1
South Holland	14	0	0				Winnetka	15	4	2		
Steger	9	1	2	1			Worth	8	1	0		3
Stickney	8	0	5									

Table 1. Jurisdictional Action Item Status Update

To help mitigate hazards and events, and to create safer communities, HMP planning partners identified action items and activities within their annex to reduce the loss of life and property. To aid planning partners in reporting their action items and activity progress, the DHSEM created an annual progress report template. The chart above is a quantitative breakdown of completed action items, new action items and action items to be removed from their annex. Out of 115 municipalities, 4 municipalities (highlighted in gray) did not submit their annual progress report. Out of 1,571 action items, 237 were reported completed. 368 action items were reported not completed. 891 action items were reported ongoing. 27 action items were reported new and 48 were requested to be removed from the HMP. To review jurisdictional progress reports for further details, please go to: <https://www.cookcountyhomelandsecurity.org/2018-annual-progress-reports>.



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Natural Hazard Events in 2018

Over the last year, there were no major Presidential disaster declarations within Cook County, but several municipalities reported that their jurisdictions experienced flooding due to heavy rainfall and sewer backup.

Bedford Park: Significant rain event. Some localized ponding of water in streets. Working with engineer and public works to identify storm sewers that may need attention.

Blue Island: The week of June 18 saw flooding in the northeast neighborhood of Blue Island. The rain storm caused intersection, street and alley flooding. Residents reported flooded garages, yards, streets and alleys.

Calumet City: On February 21, 2018, a flood occurred on the Little Calumet River. The preliminary values (subject to further review) reported by NOAA was a crest height of 19.22ft at the South Holland gauge. Major flood stage for the Little Calumet River is 20ft while moderate flood stage is 18ft.

Glenview: May 3, 2018 and June 9, 2018 - heavy rain events on these two days caused low lying streets to flood and created temporary road blockages.

Homewood: The Village had one event (February 20) that caused flooding to the central and eastern sections of town, because of heavy rainfall (2 to 4 inches) in short period of time. Most of the flooding conditions were impassable viaduct, streets and water entering through windows at grade level into basements, and in some cases through basement drains.

LaGrange: On October 14, 2017, 7.10 inches of rain fell in La Grange over a 27-hour period. This equated somewhere between a 50-year and a 100-year event. The Village received over a hundred calls for flooding ranging from basement backups, intersection flooding, overland flooding, seepage into homes, and rear yard flooding.

Lyons: We had two substantial rain events that flooded the area of Southview @ Arden and the Circle Drive area of Lyons.

Matteson: June 21st, 2018, the Village experienced some severe flooding issues due to excessive rain. The most measurable rain the Village has had during this time. Flooding has indeed had a measurable impact on property and people - flooding basements, roof leaks, accidents, and cars stuck in high waters. The viaduct at 216th and Governor's Highway always floods during heavy rains.

Oak Forest: Snow events- Nine straight days with measurable snow from February 3-11, 2018. During this nine days stretch Oak Forest received a total of 27.1" of snow with the largest amount of 12.8" in the Feb 8-10th storm.



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Oak Park: The Village of Oak Park experienced 30 snow events from January 1, 2017 through June 30, 2018 which required various levels of Village resources to manage depending on the amount of snow, times of day and days of the week. All snow events had a measurable impact on people and property.

Palos Hills: February 19/20, 2018, over 2 and a half inches of rain and snow melt occurred when temperatures rose nearly 40 degrees in 24 hours. This caused some minor flooding due to ice jams on storm sewers and unusual flow patterns caused by snow and ice. Crews cleared storm sewers and ditches which resulted in the flooded areas being drained within several hours.

Prospect Heights: The City has experienced two significant rain events in 2017 and 2018. A Severe Storm - N/A - 7/12/17 - 3/25" of rain over short period, streets, yards and basement flooding and a Severe Storm - N/A - 6/9/18 - 4.5" of rain over 3 hours, streets, yards and basement flooding.

Schaumburg: On Friday, July 21, 2017 a severe rain storm with high winds impacted the village of Schaumburg at approximately 4:53 PM. The storm caused damaged and down trees and many homes experienced siding and roof damage. On Wednesday, May 30, 2018 a significant rain event impacted the village of Schaumburg at approximately 4:57 PM. The rainfall totaled 2.1 inches in 44 minutes causing flooded and closed roads during rush hour causing massive traffic congestion.

South Holland: We received three significant rain events that had a measurable impact on our residence and their property.

Steger: Multiple flooding occurrences on the north-west corner of town due to excessive amounts of rain. Streets were blocked for a few hours but in this time, water accessed basements and crawl spaces of residences which caused damage to property.

Streamwood: July 21, 2017, an afternoon thunderstorm brought heavy rain and high sustained winds. One commercial building sustained significant damage to its roof and numerous trees and limbs were down blocking streets. Right-of-ways were promptly cleared by village employees and outside contractors. May 30, 2018, 3 inches of rain in one hour caused temporary street flooding, but no property damage.

Willow Springs: We have several areas of town that flood frequently. The two worst areas are Rust Trail & Louis and 91st Street and Orchard. Several homes reported major damage over the course of the past few years every time there is a major rain event. 91st St. & Orchard has been closed on several occasions, trapping residents with no means of ingress or egress.

Wilmette: Continue to experience large rain events resulting in widespread overland flooding and flooding into private residences.



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Mitigation Success Stories

The mitigation strategy section of the HMP identifies a range of specific actions and projects considered to reduce the risk to life, property and the economy. Below are success stories for implementing and administering mitigation activities.

Alsip: In 2016, storm sewers were added on the 11400 block of Mather Avenue to reduce street flooding. As a result, flooding has been successfully mitigated in the area.

Bedford Park: All alert sirens have been upgraded with new receivers and weather-proof boxes have been repaired (2015). All building/fire codes have been updated to 2015 standards (2016). Public education projects continue moving forward. The Village has also identified an area of flooding and is negotiating with a property owner to purchase property and develop a new retention pond (2016-ongoing). The village implemented a rain barrel program for residents to divert downspouts from going into combination sewers (2016). Building code was amended to have downspouts removed from drain tiles that enter the combination sewers, fine schedule implemented (2016). The project helped to identify issues that were lacking, upgrades were budget for, and ultimately completed.

Berkeley: A project was started to address a flooding issue in the North end of the community. It is a multi-phase project that includes installation of large storm sewer piping that will eventually tie into an expanded water retention pond. This project was completed. A bid was awarded to expand the retention pond and connect the above storm sewer to as well as other sewer feeds to lessen flooding in the northeast section of Berkeley. A new tornado siren was installed in April 2017.

Berwyn: The City has received grant funds to design and construct 10,600 square yards of impermeable alley pavement into a green alley pavement capable of detaining 254,000 gallons of storm-water. The green alley pavement allows storm-water to matriculate naturally into the ground, while reducing pollutant concentrations. The City installed over 150 feet of new 12-inch water main on the 6500 block of Windsor Avenue. The City also completed the 13th Street Pavement and Sewer Replacement project. The improvements consisted of 3,305 feet (0.63 miles) of pavement replacement, 500 feet of sewer replacement and 10,520 feet of sewer cleaning.

Bridgeview: In 2017, the new storm sewers project was completed, with no more flooding, on Roberts Road.

Brookfield: In 2017, the Village installed a storm sewer lift station pump north of Washington Ave. bridge and created new on-site local detention to help mitigate storm water flooding.



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Chicago Heights: Ongoing upgrade of storm and sanitation sewers. Ongoing upgrade of water distribution mains.

Cook County: The Cook County 2018 EOP update has been completed. The Federal Emergency Management Agency (FEMA) awarded the DHSEM a \$1.6 million grant to buy out eight FEMA and IEMA Severe Repetitive Loss (SRL) and Repetitive Loss (RL) properties in incorporated Leyden and Wheeling townships. 2/8 have closed. The buy outs will be complete in 2019. AGS site has been added to provide expanded capabilities. Increased capability for winter incidents by using DHSEM Weather system and installing Automatic Vehicle Location (AVL) system.

Crestwood: The city has completed improvements to Tinley Creek

Flossmoor: Village was previously successful in getting grant award from MWRD and Cook County Bureau of Economic Development for the flood prone properties acquisition program. We were awarded a grant to acquire two structures, of those two, one structure was removed from the flood plain based on elevation of the structure and the other declined to participate in the program. No further action will be taken with these structures. Work was also completed on our Cherry Creek East Branch Flood Control Project with numerous properties being removed from the flood plain.

Franklin Park: The Village has completed the construction of 100acft of flood control facilities in the Clearing Industrial Park and has completed approximately 70% of the storm sewer improvements to convey storm water to the new facilities.

Glencoe: In 2017, the Village of Glencoe Public Works Department has made improvements to the water retention basins at Park Ave and Madison Ave. The Public Works Department has also made restorations to the ravines at Brentwood and Rockgate.

Golf: The Village completed a GIS Tree inventory system which inputs data on every tree owned by the village. Said data includes the age, photo, species, height, condition and location. The documented date will allow the village to identify those trees in need of removal or trimming.

Hanover Park: State of Illinois completed improvements to IL-20 (Lake Street) raising the elevation of the roadway surface to not be impacted by high water on the West Branch of the DuPage River. Designed and have implemented additional storm water detention at the Hanover Park Sports Complex and installed lightening detection. Continued stream maintenance programs including erosion control and mitigation project at Longmeadow Lane.



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Hickory Hills: Installation of 230lf of new storm sewers, \$60,000 project to relieve residential flooding have been completed in April 2018. Improvement of conveyance for 1300lf of existing storm sewers by cured -in -place liner system occurred in March 2017. Improvements of conveyance for 1500lf of existing storm sewers by cured-in-place liner system in February 2018

Hodgkins: A new siren was erected in the N/E corner of the main residential area, providing an enhanced discernible warning alarm for these citizens. Water retention upgrades were created in a new commercial area within the municipality. The Village constructed underground retention ponds in this area (6200 block East Ave.) to mitigate any flooding due to the development of the property. The Village Water Department committed to a project whereby major improvement were made for reliability to potable water system (pumping stations) throughout the village. Improvements in hydrant infrastructure in N/E residential area of the Village (Parkview).

Justice: The Village has made many improvements to its current storm water infrastructure. The village has televised and made repairs/replaced to over 1000 linear feet of storm sewer and have replaced 7 manhole structures. Ditch and culvert improvements have been completed in multiple locations.

Kenilworth: Village installed porous asphalt throughout several streets on the Northwest side of town. The asphalt has helped alleviate flooding on our streets and basements of homes.

LaGrange Park: The Village is in year three of an Illinois Green Infrastructure Grant Program through the Illinois EPA, focusing on disconnecting downspouts from the Village's combination sewer system. The goal is to remove excess rainwater from needing to be treated, but it has also provided benefits by removing or slowing such water from entering our combined sewer system, which helps reduce the frequency and extent of system surcharges.

Lincolnwood: We finally finished a 5-year project by replacing all the fire hydrants with the Village. The last section on Crawford was completed after a complete rebuild of the entire street and its infrastructure. In 2017, the Village installed a new storm sewer under the Union Pacific Parking Lot and the Village utilized permeable pavers that allow storm water to flow through the sub-base instead of overloading the sewer system. We also cleaned 50 % of the Village's catch basins, keeping them clear for storm water entering the combined sewer/storm water system. There was an ongoing effort to increase sewer capacity for storm water and snowmelt on the east side of Markham by separating the combined sewer system.

Matteson: The Village of Matteson has completed engineering and design and construction activities relative to the following: Rehabbing existing sewer mains (Sanitary Sewer Pipeline), Reconstructing existing pipelines (Cured-in-Place pipelining (CIPP) and Point Repair to existing sewer sections.



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Merrionette Park: Water main replacement on 118th Street to prevent future breaks and upgrade fire hydrants and valves.

Mount Prospect: The Army Corps completed construction of Levee 37. The remaining item, a backflow valve under Palatine Road was completed and a new storm sewer installed Park Drive provides 25-year intensity storm protection.

MWRD: Construction is progressing on a Metropolitan Water Reclamation District of Greater Chicago (MWRD) project that will improve water conveyance in a local creek in Flossmoor and replace restrictive culverts to alleviate flooding for a local high school and neighboring residents. The McCook Reservoir was formally unveiled December 4, 2017. The Project will provide cleaner water and protection from flooding for 3.1 million area residents. Below are weblinks to some mitigation success stories posted by Metropolitan Water Reclamation District of Greater Chicago's Public Affairs Office.

12/18/17:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2017/17_1218_Cherry_Creek_HF_progress.pdf

12/07/17:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2017/17_1207_McCook_Ribbon_Cutting_Ceremony.pdf

04/11/17:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2017/17_0411_RestoreTheCanopy_Kickoff_EarthArborDays.pdf

04/05/17:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2017/17_0405_IAFSM_Award_StormwaterStudy.pdf

3/27/17:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2017/17_0327_Niles_Ribbon_Cutting.pdf

01/10/17:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2017/17_0110_Wadsworth_Space_to_Grow_Time_Lapse.pdf

11/15/17:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2016/16_1115_Wescott_Park_Northbrook.pdf

11/08/16:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2016/16_1108_SpacetoGrow_Ribbon_Cuttings.pdf

10/31/16:

http://www.mwrdd.org/irj/go/km/docs/documents/MWRD/internet/News&Media/Newsroom/Media/Press_Releases/2016/16_1031_Tree_Initiative.pdf



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Niles: Two water retention basins have been constructed to help alleviate overland flooding. Planning is ongoing for the construction of a third. The Village has provided \$1,700,000 to 425 property owners to assist in the installation of sewer back flow protection and advised on solutions to overland flooding protection measures.

Palos Hills: Public works has rebuilt / rehabilitated their 108th St Lift Station and is in the process of rebuilding the 111th St Lift Station. Both stations no longer require personnel to enter a drywell station to conduct repairs and maintenance to the pumps. The stations have been converted to submersible and suction pumps.

Park Ridge: The Public Works Department has been working to clean out miles of sewers which has drastically increased the amount of water they can handle. They also have been re-lining the sewer system. These combined efforts have allowed Park Ridge to handle large weather events with heavy rainfall with minimal flooding in town.

Riverdale: During this reporting period, we could complete a \$ 7.6 Million Dollar Sewer Relief project. This project was funded by grant dollars through Cook County's Community Development Block Grant. With the help of this grant, the Village of Riverdale could help relieve the residents within the Northeast side of the village with basement back-ups and flooding. For decades, this area was devastated during heavy rain events with basements backing up and flooding. Since the completion of this sewer relief project, there has been dramatic improvement in the drainage which have left basements dry.

River Forest: Completed storm sewer project north of Division Street. The Project will alleviate flooding issues during heavy rainfall periods.

Schaumburg: Three of five culverts along the West Branch of the DuPage River have been rehabilitated as part of the 5-year Capital Improvements Program.

Streamwood: Cooperative storm water mitigation project in conjunction with the Village of Bartlett completed.

Wheeling: Completion of the acquisition and demolition of forty-six (46) repetitive flood damaged structures and relocation of affected residents of the Fox Point Mobile Home Park. Re-grading and bank stabilization of the Meadow Lane and Ridgefield storm water detention basins. Participation in the regional enlargement of the Buffalo Creek Reservoir to minimize the effect of upstream watershed discharge on the Village of Wheeling.

Willow Springs: The Village has recently negotiated with the Illinois Toll Highway Authority to purchase the homes on Rust Trail and turn the area into a detention area as part of their "Mile Long Bridge" project. The purchases will be completed in 2019.



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The village has been awarded a grant by MWRD for the flooding area on 91st and Orchard and have already begun working with MWRD Engineers on the project.

Wilmette: The Village Board voted to move forward with the Neighborhood Storage Improvement Project (NSIP). The NSIP project consists of constructing three underground detention structures and associated relief sewers to improve the effectiveness of the existing storm sewer system. The project is estimated to reduce structure flooding for 71% of the homes inundated by flooding in a ten-year storm event. In response to widespread sanitary-related flooding in the separate sewer system west of Ridge Road, the Village implemented a multi-tiered approach to address sanitary sewer backups.

Winnetka: The northwest corner of Winnetka continues to show an improvement in storm water runoff control. That area has been prone to significant flooding in past years. During the reporting period, we did not receive any reports of flooding in this area and the streets were all passable.

Plan Evaluation

Since the 2014 adoption, no changes have been made to the Cook County Multi-Jurisdictional Hazard Mitigation Plan. The City of Chicago joined the Cook County Hazard Mitigation Plan August 3, 2018. The HMP is due for evaluation, update and re-submission to the State of Illinois September of 2019. Items identified in annual reports may be used to update the HMP.