



# Kane County Natural Hazards Mitigation Committee

Annual Report  
For  
2017

**TO:** Members of the Kane County Board  
**FROM:** Kane County Natural Hazards Mitigation Committee  
Co-Chair  
Sean Madison  
Deputy Director  
Office of Emergency Management  
[MadisonSean@co.kane.il.us](mailto:MadisonSean@co.kane.il.us)  
Co-Chair  
Anne Wilford  
Water Resources Engineer  
Division of Environmental and  
Water Resources  
[WilfordAnne@co.kane.il.us](mailto:WilfordAnne@co.kane.il.us)

**SUBJECT:** Annual Report for 2017  
**DATE:** January 10, 2018

Kane County is subject to natural hazards that threaten life and health and have a history of causing extensive property damage. To better understand these hazards and their impacts on our communities, the County's Division of Environmental & Water Resources and Office of Emergency Management jointly undertook the creation of the Kane County *Natural Hazards Mitigation Plan*.

The *Plan* identifies activities that can be undertaken to reduce safety and health hazards along with property damage caused by natural hazards. It focuses on the five major natural hazards that threaten Kane County: floods, tornadoes, earthquakes, thunderstorms and winter/ice storms.

***The full Natural Hazards Mitigation Plan can be reviewed or downloaded at [http://www.kcoem.org/files/haz\\_mit\\_plan.pdf](http://www.kcoem.org/files/haz_mit_plan.pdf)***

On October 14, 2003 the Kane County Board passed resolution 03-308 adopting the Natural Hazards Mitigation Plan. A provision in this resolution requires the committee to submit an annual written report to the County Board, summarizing the *Plan's* implementation status for the preceding year.

The following is our report for 2017:

**A. A review of the original Plan.**

Kane County has been subject to a variety of natural hazards over the years including tornadoes, floods, ice storms, blizzards, severe thunderstorms and high wind events. The County's Emergency Operations Plan takes these types of events into account and identifies appropriate response activities.

The Disaster Mitigation Act of 2000 states that after November 1, 2003, local governments applying for pre-disaster mitigation funds must have an approved local mitigation plan. After November 1, 2004, a mitigation plan will also be needed before applying for post-disaster mitigation funds under the Hazard Mitigation Grant Program.

In 2002, the County Board approved the creation of a Natural Hazards Mitigation Plan planning committee. The Committee met monthly from October 2002 through September 2003 to develop the plan that was presented to and approved by the Board in October 2003. The Committee identified 17 key action items for implementation.

The ongoing portions of the action items have been started and will continue through the life of the Plan.

**B. A review of natural disasters during 2017.**

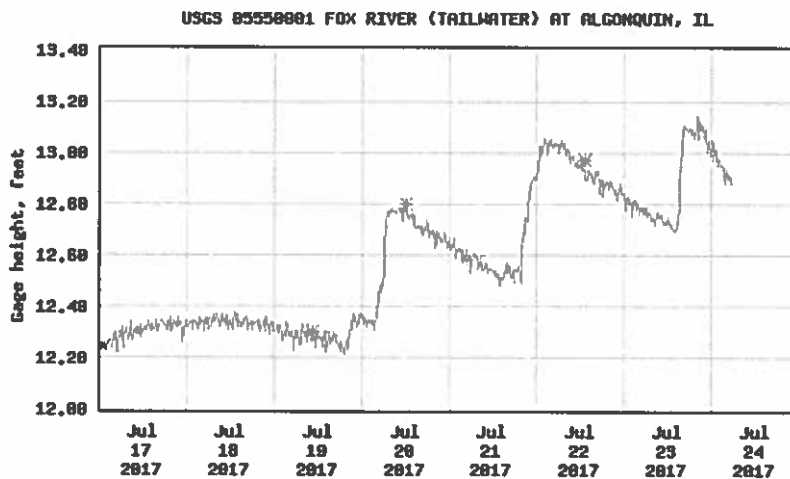
Late on the evening of July 11<sup>th</sup> into the morning of July 12<sup>th</sup>, multiple waves of thunderstorms moved across southern Wisconsin and northeastern Illinois and produced copious amounts of rain in the region. Given the repetitive nature of these storms, over the same location, substantial rainfall amounts resulted.

As a result, river flooding along the Fox River became a major problem for our northern river towns and continued through the month of July reaching a record crest level of 13.15 feet or 3.65 feet above flood stage.

As the water worked its way down the Fox approaching Kane County the OEM used our CodeRED reverse 9-1-1 system to alert the communities prone to flooding along the Fox River to prepare for this event.

During the County's response to this incident the OEM and KDOT teamed up to deliver over 31,000 sandbags and sand to assist the stricken communities with their protective flood fighting efforts.

Exasperating the situation, once the flooding began in Kane County storms continued to move through the area depositing additional amounts of rain in bursts over the already saturated region.



As the rain ended and damage assessment teams were able to begin their work it was learned that flood damage to homes and businesses was mostly concentrated in an area along the northern Fox River and there was very little associated flash flooding as occurred during the 2013 flood.

As the water receded the massive cleanup effort began and communities continued to assess their damage and the economical impact this event has had on the community.

### **C. A review of the action items.**

Although the original plan identified 17 key action items the current plan identifies 15 items. One of the original action items, Critical infrastructure, has been completed and two others that were very similar have been combined into one.

#### **1. Building Code Improvements**

Adopt the latest International series of codes, the new national standard that is being adopted throughout the country.

Status:

- Burlington, Village of
  - The Village developed an alternative to our Building Codes that would allow for installation of permanent ramps to provide wheelchair access to local businesses that are not required to provide this access. The local businesses were contacted for their input and/or consideration.
- Elgin, City of
  - The 2015 International codes were all evaluated by the Fire Department's Fire Prevention Bureau and City's Building Department. Currently awaiting final approval from the Legal Department.
- Lily Lake, Village of
  - Adopted 2015 IBC.
- North Aurora, Village of
  - The Village is currently using 2009 International Series and considering options for adoption of updated codes.
- South Elgin, Village of
  - The Village of South Elgin has placed the proposed 2018 ICC International Codes on the agenda for discussion and adoption in January 2018.

#### **2. Improved Code Enforcement**

Develop and conduct training for building department staff on the natural hazards aspects of the International Codes, regulation of mobile home installation, and the new County storm water management ordinance and its

flood protection, wetland protection, erosion and sediment control and best management practices provisions.

**Status:**

- Kane County Division of Environmental and Water Resources
  - Met with the Building Department staff for a Presentation and a Question and Answer Session on Substantial Damage and Improvement on properties located in the floodplain.
  - In July 2017, the Kane County Division of Environmental & Water Resources and the Illinois Department of Natural Resources held a review session on using the Substantial Damage Estimator (SDE) Software to help communities provide timely substantial damage determinations after the rain events earlier in the month. Three Kane County staff members from the Environmental & Water Resources Division attended.
  - In October 2017, Kane County hosted a Public Roads Deicing Workshop to inform communities about roadway Best Management Practices during winter weather. A total of 41 people attended the workshop, including staff members from the Kane County Division of Environmental & Water Resources, Kane County Division of Transportation, Kane County Building Management, and the Forest Preserve District of Kane County.
  - In November 2017, staff from the Kane County Division of Environmental & Water Resources participated in one of the Association of Stormwater and Flood Plain Managers (ASFPM) CRS Green Guide webinars.
- Burlington, Village of
  - One property was identified earlier in the year as abandoned and in a condition presenting a hazard to the safety, health, and welfare of residents. The Village pursued a grant for the demolition of the property if owners of claim do not take action to remedy the problem. This item is currently not resolved but our action has moved it closer to resolution.
  - During the fall, a second property was identified as abandoned and action has been started by the Village to move forward to prevent the property from getting to a state of concern to public health and safety.
- Elgin, City of
  - Staff attended training on flood management at the IEMA conference in Springfield. Fire Prevention and Code Enforcement personnel attended annual code inspection training that included natural hazard mitigation components.
- Lily Lake, Village of
  - Our building staff is outsourced to B&F Construction Codes and Engineering Enterprises Inc. as well as referencing all Kane

County Departments for further advice and instruction regarding water, wetland, erosion, and stormwater control & protection.

- South Elgin, Village of
  - Village staff regularly attends the annual Illinois Association of Floodplain and Stormwater Management Conference. The Village holds membership to both IAFSM as well as AFSPM.
- St. Charles City of
  - The City currently has one Certified Stormwater Inspector and two Certified Floodplain Mangers on staff in the Public Works Division.

### **3. Review of Plans and Development Regulations**

When they are up for revision; comprehensive plans, land use plans, and zoning and subdivision ordinances should incorporate mitigation provisions.

#### **Status:**

- Kane County Division of Environmental and Water Resources
  - In August 2017, the Kane County Development Department and Kane County Division of Environmental & Water Resources held a meeting to increase coordination between the departments with regard to building improvements in the floodplain. The group implemented further procedures to identify floodplain properties and document improvements. A protocol was put in place to coordinate permitting within the floodplain with the Building Department and the Division of Environmental & Water Resources.
  - In October 2016, the Kane County Board approved the allocation of Grand Victoria Riverboat funding for revising the Kane County Stormwater Ordinance during FY2017. In February 2017 the Stormwater Management Planning Committee (SMPC) met and elected the Chairman and Vice Chairman. In April 2017 the SMPC passed a resolution to contract Engineering Resource Associates to provide services for the update to the Kane County Stormwater Management Ordinance. In May of 2017 The Stormwater Management Technical Advisory Committee elected a Chairman and Vice Chairman, meetings have been held by this Committee in August, September, October and November of 2017 to discuss proposed updates to the Ordinance. The Committees will continue to meet in 2018 to work on updates to the Ordinance.
- Carpentersville, Village of
  - OSLAD funding was released by the Governor and the project is currently under construction, the anticipated completion date for this project is the spring/early summer of 2017. Project Completed July 1<sup>st</sup>.
  - No properties have been acquired to date for 2017 for the Old Town Comprehensive Plan along the Fox River.
- Lily Lake, Village of

- When our Comp Plan is revised, these measures will be incorporated.
- South Elgin, Village of
  - The Village is currently reviewing (for adoption) a new Unified Development Ordinance that will limit development in the Special Flood Hazard Area.
- St. Charles City of
  - The City Engineering Design and Inspection Policy Manual was adopted in October 2009 and was updated in December 2013. This manual contains the specifications for utilities, roadway and stormwater management, as well as inspection procedures. Erosion control details are referenced to those provided by the Natural Resources Conservation Service as published in the Illinois Urban Manual. Stormwater management design is per the Kane County Stormwater Ordinance as adopted and modified by the City of St. Charles.

#### 4. **Retrofitting Incentives**

Establish a program of technical assistance and financial incentives to encourage property protection measures on private property, such as:

- Surface and subsurface drainage improvements
- Berms and regrading for shallow surface flooding
- Sewer backup protection
- Relocating furnaces and water heaters out of basements
- Tornado safe rooms
- Installing lightning rods

Status:

- Kane County Division of Environmental and Water Resources
  - Property owners can seek technical assistance from the Kane County Division of Environmental & Water Resources to aid in solving drainage issues on individual properties—such as with the redirection of downspouts, sump pumps, construction of rain gardens, dry wells, etc. In 2017, the Division provided assistance on 81 floodplain inquiries and 19 drainage complaints.
  - Additionally, the following retrofitting articles to aid in solving drainage issues on individual properties were published in Kane County Connects during 2017:
    - Getting ready for swimming season? here's how to drain your pool properly – June 2017
    - Countdown to earth day tip #9 — disconnect your downspout! – April 2017
    - Countdown to earth day tip #13: capture the rain! – April 2017

- Burlington, Village of
  - The Village continues to work with local residents who improve/replace driveways to offer reimbursement of culvert replacement concurrent with their project. A couple residents have indicated an interest; however, no projects developed during the year.
- North Aurora, Village of
  - The Village has an overhead sewer program that is advertised on its web site. This program is designed to prevent sewer back-ups in basements and identify prohibited connections. Incentives are in place up to reimburse the costs of the retrofit up to \$8,000.
- St. Charles, City of
  - The City continued to offer residents a program to reimburse them up to 50% of the cost, up to \$2,500 total, to install backflow prevention on their sewer service. This program is meant to help residents that have experienced problems with sewerage backups.

## 5. Repetitive Loss Projects

Protect the buildings in repetitive loss areas 7, 8, 9, 12 and 14. These are the top priority areas based on the flood hazard and type of construction, as explained in the criteria on page 5-12. Acquisition is the recommended property protection approach for areas 7, 8, 9, and 12 and elevation is recommended for areas 9, 12 and 14. Properties in the other repetitive loss areas could be protected by retrofitting measures that could be funded for much less under the cost share program proposed in action item 5.

### Status:

- Kane County Division of Environmental and Water Resources
  - Kane County continues to monitor the need for additional flood prone property protection, especially with regards to repetitively flooded properties.
  - Through site visits and the Substantial Damage Estimator program it was determined that 11 homes suffered damaged in the July 2017 rain events. Of these 11 homes, 7 of the homes were determined to be substantially damaged. The homes affected by the July 2017 Flood were located in Repetitive Loss Areas 8, 9, 16 and 19, as well as Village of Algonquin (Unincorporated Kane County). The County is working with these homeowners to determine if it is feasible to elevate these buildings or demolish and leave as open space.
  - Two homes located in the Floodway that were substantially damaged by fire, are in the County's permitting process for 2017 for elevation.
  - Two other homes in repetitive loss neighborhoods have also been damaged by fire in 2017. The County is working with these



homeowners to determine if it is feasible to elevate these buildings or demolish and leave as open space.

- North Aurora, Village of
  - The Village will be working to identify its repetitive loss properties in 2018.
- St. Charles, City of
  - The City acquired a repetitive loss property on Indiana Avenue in July 2017. The house and out buildings are to be demolished and the site put back to its predevelopment condition in early 2018.

## **6. Drainage Maintenance**

Implement a formal and regular drainage system maintenance program.

Status:

- Kane County Division of Environmental and Water Resources
  - The Kane County Division of Environmental & Water Resources staff provide technical assistance upon request to local governments and citizens with drainage problems throughout unincorporated Kane County. Work is underway to provide inspection of the SSA basins in 2018 and further the HOA database. The Division is developing a program to identify HOAs that are not active or were never established during the economic downturn and are working with the residents to activate the HOAs or begin levies on the SSA for the necessary maintenance. The Division has begun working with one such subdivision in 2017, who previously did not have an HOA, to manage and maintain the subdivision's stormwater facilities.
- Kane County Division of Transportation
  - Has swept approximately 85 miles of curbing and 40 bridge decks on a regular monthly interval.
  - Brush and tree trimming/removal along the County ROW on a regular maintenance schedule, mostly during the winter months. This detail is also done for storm damage. This year the south end of the county was completed.
  - Replaced 12 cross culverts and completed many ditching enhancements/cleaning along the County R.O.W.
  - Jetted out all culverts and catch basins in the northeast part of the county.
- Aurora, City of
  - Inspects and maintains stormwater pump stations 5 times per week at Orchard Rd, Molitor Rd, and Manchester Way.
  - Removes leaves/debris from catch basin grates and cleans critical detention basin restrictors before significant storm events.
  - Maintains or replaces approximately 500 catch basins per year.

- Burlington, Village of
  - The Village completed the 4th year of contracted services for maintaining the Meadows Pond to provide proper drainage for runoff water from the sub-division into the designated wetland overflow area. Regular attention to the overflow area is of great concern to maintain proper vegetation for the effectiveness of the ego-system. This has been and continues to receive annual priority.
- Carpentersville, Village of
  - Catch basin cleaning program was ongoing through 2017.
  - The Public Works Department removed fallen trees and debris from the drainage ditch within Keith Andres Memorial Park.
  - The Public Works Department contracted out the removal of iron deposits within the storm sewer outfall pipe that extends from Spring Point Townhomes into the Newport Cove Subdivision.
  - The Public Works Department removed two garbage totes that were lodged in a concrete box culvert crossing Alameda Drive.
- Elgin, City of
  - The City regulates and enforces drainage maintenance and water retention as required by Kane County's Stormwater Management Ordinance and FRWRD. Several initiatives were accomplished in 2017, including:
    - 109,289 feet of storm pipe cleaned
    - 1954 catch basins cleaned
- Hampshire, Village of
  - Installation of an insertion valve on watermain.
  - Controlled burning around ponds was completed in the fall.
  - Jetting and televising of sanitary sewers was completed.
  - Removed a willow tree growing into storm sewer on Centennial Drive.
  - Jet and vac storm sewer on the 300 block of Highland.
- Lily Lake, Village of
  - Lily Lake has a Maintenance Plan in place for drainage and road maintenance. We have been working on the plan for several years as funds become available.
- North Aurora, Village of
  - The Village routinely maintains its drainage system through inspection and maintenance of its conveyance and storage infrastructure. The Public Works department will be formalizing these policies in 2018.
- St. Charles, City of
  - Ongoing inspection and monitoring of open channels within the City of St. Charles were conducted through Public Works. Debris in the creek channels is cleaned up as needed. Open channel culverts are inspected on a regular basis by consulting engineering firms. Detention basin inspections, both public and private, were

conducted through Community Development. Letters are sent to property owners if pond maintenance is required.

## **7. Urban Forestry**

Implement an urban forestry program that qualifies the municipality to become a Tree City, USA.

### **Status:**

- **Aurora, City of**
  - Maintains its Tree City USA designation.
- **Burlington, Village of**
  - The Village was able to advance our program of improving the parkways by contracting the grinding of the stumps of the EAB trees that have been removed to date and to re-seed all of those areas.
  - All sidewalks of the Village received an inspection of low hanging branches and all limbs were trimmed to an overhead clearance not lower than 7 feet.
- **Carpentersville, Village of**
  - The Village was designated as a Tree City USA community for the fifth consecutive year.
  - The Village has removed approximately 2,281 small to medium diameter ash trees.
  - Funds in the amount of \$50,000 were allocated within the 2018 fiscal year budget for a tree replacement program. Only 193 ash trees remain within the Village's parkways and parks.
  - Emerald Ash Borer Cost sharing program continued through 2017 with one tree replaced.
  - 483 trees were replaced as part of the Village's Fall Tree Replacement Project.
- **Elgin, City of**
  - The City had the Tree City, USA designation for many years until 2013. The City is in the process of submitting the application now with the intent of reestablishing that title in 2018.
  - The City planted a total of 350 trees in municipal owned right of ways, parkways, and parks in 2017.
  - Currently, the City has a contract with a professional tree service to trim the trees located on municipal parkways, with the intent that every tree is touched on a five to seven year rotation.
  - The City also has a contract with a professional tree removal company to address any hazardous trees and trees with Emerald Ash Borer (EAB).
- **Hampshire, Village of**
  - Maintains a program to trim or remove hazardous trees in the village.

- Lily Lake, Village of
  - Lily Lake has not formally implemented an Urban Forestry Program, but has planted over 100 saplings this spring to plant around the Village Hall, Park and surrounding areas. If the saplings are successful, extras may be offered to Lily Lake Residents.
- North Aurora, Village of
  - Maintains its Tree City USA designation.
- St. Charles, City of
  - A proclamation for Arbor Day, April 2017, was issued by the City of St. Charles.
  - The City has an ongoing program to remove trees on public property that are diseased or found to be infected with Emerald Ash Borer. For the year 2017, 227 dead and/or diseased trees were removed.

## 8. Flood Warnings

Review the gauging system in the County, especially the western rural areas, to determine where additional rain and stream gages would be worthwhile.

Status:

- Kane County Division of Environmental and Water Resources
  - During 2017, the Kane County Division of Environmental & Water Resources continued to support the operation and maintenance of stream and rainfall gages throughout the county by re-appropriating \$59,260 in FY2017 funds under a Joint Funding Agreement with the U.S. Geological Survey covering a time period of October 1, 2016 through September 30, 2017.
- St. Charles, City of
  - Fox River gages north of the City can be accessed online to help predict how extensive the flooding will be along the river in St. Charles. Continuing in 2017 a link has been made available on the City's floodplain page to the Fox River gage in Algonquin, IL.
  - Continuing in 2017 a link has been made available on the City's floodplain page to USGS gage No. 05551200 on Ferson Creek. This gage displays precipitation amounts, the volume of stream flow and the gage height on the creek.

## 9. Improved Emergency Response

Conduct a review of emergency response plans and programs to:

- Ensure that each municipality has an emergency management coordinator or liaison.
- Identify where additional activities are needed to respond to natural hazards, especially activities that can be undertaken after a flood warning and before the flood arrives.
- Ensure there is adequate and current information on critical facilities.

- Incorporate post-disaster procedures for public information, reconstruction regulation and mitigation project identification.
- Conduct a table top exercise at least once a year
- Identify what rural areas could use additional warning capabilities.

**Status:**

- Kane County Office of Emergency Management:
  - Sponsored a severe weather spotter's class.
  - During 2016, OEM sponsored NIMS instructors conducted ICS 300 and ICS 400 classes.
  - The OEM facilitated 3 disaster exercises to test both County and municipal emergency plans. We also participated in 2 additional exercises.
- Aurora, City of
  - The City along with the City of Naperville applied for and was awarded a total of \$1,373,800 for the Preparing for and responding to Complex Coordinated Terrorist Attacks program from FEMA and DHS. The program is a 3 year grant and will cover the Aurora Naperville region that will include communities in Kane and DuPage Counties. This grant will have focus on Response, critical infrastructure, Continuity of Operations, training and exercise along with whole community engagement.
  - The City is using the Everbridge Platform which provides an enhanced system for communicating with the public and also City of Aurora employees.
  - The City has incorporated the WEB EOC emergency management platform. This change allows for sharing of information with other county and state agencies.
  - The city is now implementing enhanced security procedures for identified larger events and parades.
- Burlington, Village of
  - Subsequent to the Plank Road Re-alignment program, we were involved in a lengthy process of preventing unnecessary traffic on the Old Plank Road corridor. Traffic flow has been vastly improved for the residents and for emergency vehicles that are necessary in this area.
  - The Water Tower Rehabilitation project of 2016 received its final inspection in 2017 and the project has now completed all necessary work to eliminate the concern of catastrophic failure.
- Elgin, City of
  - The Fire Department and the Office of Emergency Management hosted a Senior Officials Workshop for All-Hazards Preparedness class in May 2017 and a Command and General Staff class in August 2017.
  - CERT classes continue to be held monthly on numerous topics regarding natural disasters and preparedness.

- Continued interdepartmental training with the fire and police departments for large-scale emergencies and disaster response.
- Continued to work on upgrading the Cities EOC.
- Lily Lake, village of
  - Continuing to develop a plan - restricted by lack of funds, manpower and time.
- St. Charles, City of
  - As part of the emergency preparedness, the City was certified as a Storm Ready Community in 2014. The City was re certified in 2017.

## 10. Flood Control Projects

Implement structural flood control projects, including farm drainage improvements and projects to improve bridges and culverts, where they prove to be the most appropriate approach to reduce flood damage. Such projects need to meet the criteria listed in Section 8.8.

### Status:

- Kane County Division of Environmental and Water Resources
  - During 2017, the Kane County Division of Environmental & Water Resources completed 6 cost-share projects to reduce flooding on unincorporated residential properties. The Division of Environmental & Water Resources staff gave a presentation on these projects to the Kane County Development Committee in October 2017. The projects included:
    - Tamara Ditman Outfall Storm Sewer (Plato Township)
    - Stonecrest Phase 1 (Elgin Township)
    - Bowes Bend Phase 1 (Elgin Township)
    - Skyline Estates (St. Charles Township)
    - Nottingham Drive (Blackberry Township)
    - Kenmar - Winden Oak (Blackberry Township)
- Aurora, City of
  - Eola Road Widening (cost \$10.3M) is complete. Eola Road was widened between Montgomery Road and 87th Street. The project also included approximately \$2M in stormwater management improvements to reduce flooding, particularly at Ridge Road.
  - South Eola Road Stormwater Management and Conveyance Improvements (cost \$425K) is complete. Installation of 2,200 feet of new storm sewer (18"-48" diameter) to alleviate flooding, particularly at the intersection of South Eola Road and Barrington Road.
  - Galena and Downer Sewer Separation (cost \$7.3M) is complete, except for surface restoration. The project involved installation of new storm and sanitary sewers to replace undersized combined sewers and prevent basement back-ups.

- West New York and Spruce Sewer Separation (cost \$770K) is complete. The project involved installation of new storm and sanitary sewers to replace undersized combined sewers and prevent basement back-ups.
- Waubonsie Lake Dredging (cost \$1.75M) is substantially complete. Excavation of silt deposits has created a healthier lake environment and reduced the potential for sediment migration during flood events.
- Burlington, Village of
  - Our North Main Street Drainage Project was re-inspected to remedy any flaws in the system due to a project completed late the prior year and the winter freeze/thaw cycles.
  - One local resident improved the drainage in a designated runoff retention area to improve the elimination of water that gets trapped in the area.
- Carpentersville, Village of
  - The Public Works Department installed 5 storm sewer dry wells throughout the village in order to relieve nuisance roadway flooding and provide a means of drainage during light to moderate rainfall events.
  - The Public Works Department installed 32 feet of 8" storm sewer and 2 inlets in order to relieve street flooding and provide an outfall for the existing storm sewer system along Day Lane.
  - Update on Lake Marian Watershed project - The village completed a Phase I Engineering study and submitted for an IEPA-319 grant for a bank stabilization and infiltration project. Funds were allocated for the completion of a Phase II Engineering study in the Fiscal Year 2018 Budget should the village receive notification by the IEPA that a grant was received.
  - Sioux Ave storm water project - As part of the Longmeadow Parkway construction, the Kane County Division of Transportation will be replacing a filed 15-inch storm sewer outfall sewer along Illinois Route 62 and replacing it with a new 18" storm sewer outfall sewer. While this will not completely solve the flooding issues along Sioux Avenue, it will defiantly assist in smaller rain events.
  - Lake Marian Watershed - Alameda Ave - This project was included in the Fiscal Year 2018 budget to complete a Phase I Engineering study which is anticipated to be completed by the end of 2017.
  - Lake Marian Watershed - Kings Ave - This project was included in the Fiscal Year 2018 budget to complete a Phase I Engineering study which is anticipated to be completed by the end of 2017.
  - Lake Marian Watershed - Williams Rd - This project is still a priority; however, no funding has been allocated at this time.
  - Lake Marian Watershed - Keith Andres Dam - This project is no longer a priority as a bank stabilization and infiltration project is anticipated.

- Lake Marian Watershed - Keith Andres Park Dams - The village completed a Phase I Engineering study as part of action item #7.1. Funds were allocated for the completion of a Phase II Engineering study in the Fiscal Year 2018 Budget should the village receive notification by the IEPA that a grant was received.
- Lake Marian Watershed - Keith Andres Riffle Pool - The village completed a Phase I Engineering study as part of action item #7.1. Funds were allocated for the completion of a Phase II Engineering study in the Fiscal Year 2018 Budget should the village receive notification by the IEPA that a grant was received.
- Lake Marian Watershed - Keith Andres Park J Hook Vanes - The village completed a Phase I Engineering study as part of action item #7.1. Funds were allocated for the completion of a Phase II Engineering study in the Fiscal Year 2018 Budget should the village receive notification by the IEPA that a grant was received.
- For Winds Way Creek - This project is still a priority; however, no funding has been allocated at this time.
- Four Winds Way Creek - Riverside Drive - This project was completed in the spring of 2017.
- Washington Street/Spring Street Culvert Replacement - Construction initiated in the fall of 2017 and is anticipated to be completed in the summer of 2018.
- Williams Road Storm Sewer Improvement Project - Construction was completed in the spring of 2017.
- Hopi Lane Storm Sewer Improvement - Phase II Engineering is complete, however, due to land acquisition concerns and funding, the project was not incorporated into the Village's Fiscal Year 2018 budget.
- Wakefield Area Drainage Study - This project is scheduled to commence in 2018 and was approved in FY18 budget with a cost of \$140,000
- Kings/Amarillo Area Drainage Study - This project is scheduled to commence in 2018 and was approved in FY18 budget at a cost of \$55,000.
- Elgin, City of
  - The City continues to purchase land that is in know flood plain areas.
- Lily Lake, Village of
  - Incorporated into our Maintenance Plan mentioned in section 6 Drainage Maintenance above. Some issues are in cooperation with adjoining farmers and Forest Preserve-owned land.
- North Aurora, Village of
  - The Village routinely inspects its stormwater infrastructure and makes improvements as they are needed. The most recent example would be the improvements in Harfield Estates Subdivision that were implemented to increase inlet capacity.



- St. Charles, City of
  - As part of the 2017 MFT program the City replaced 10 storm structures and installed 3 new storm structures.
  - As part of the 2017 MFT program the City replaced 288 feet of storm sewer and installed 32 feet of new storm sewer.
  - The City continued its program of televising storm sewer and inspecting storm structures.
  - During 2017 the City extended the east end of the culvert under Route 31 just north of Geneva. This project also included bank stabilization to prevent erosion.

**11. Hazard Mitigation Materials**

Prepare background information, articles, and other explanations of hazard mitigation topics.

Status:

- Kane County Division of Environmental and Water Resources
  - During 2017, the Kane County Division of Environmental & Water Resources made updates to its "Floodplain Information" and "Local Drainage Assistance" webpages on the Kane County website:
    - <http://www.countyofkane.org/FDER/Pages/environmentalResources/waterResources/floodplain.aspx>
    - <http://www.countyofkane.org/FDER/Pages/environmentalResources/waterResources/localDrainage.aspx>
- Carpentersville, Village of
  - The Village participates in the FEMA Community Rating System (CRS) program, and publicizes information on this program annually in the Village newsletter. Also Letters publicizing the assistance available to residents and businesses goes out annually to insurance companies and realtors in the local area Ongoing.
- South Elgin, Village of
  - Public outreach is ongoing.
- St. Charles, City of
  - During 2017, two information brochures were made available to the public through the Public Works Engineering Division, the Building and Code Enforcement Office and the City of St. Charles website. These are "Selecting a Contractor, Flood Damage" and "Floodplain Information". These documents are updated as needed. Topics from the Floodplain Information brochure are regularly published in the City's monthly newsletter.

**12. Outreach Projects**

Prepare and disseminate outreach projects based on the materials provided under action item 11.

Status:

- Kane County Division of Environmental and Water Resources
  - Distributed stormwater management educational materials, which contain some information on minimizing flood risk, at these public outreach events during 2017:
    - One Earth Film Festival at Waubensee Community College in Aurora (3/6/17)
    - 'It's Our River Day' in Algonquin (9/16/17)
  - The following flood management-related articles were published in Kane County Connects during 2017:
    - Flood advisory for the fox river affects Kane County – January 2017
    - NWS: risk of 2017 spring flooding is 'normal' – February 2017
    - Kane County flood warning: Algonquin makes sandbags available – July 2017
    - Algonquin declares state of disaster; flooding continues in Kane – July 2017
    - flood 2017: Kane County declares state of disaster – July 2017
    - Kane health department: how to survive disasters, avoid contamination in wake of flood – July 2017
    - state of Illinois: check your insurance in wake of summer storms, flooding – July 2017
    - Algonquin hits 'major flood' stage; multiple rounds of storms coming – July 2017
    - reminder: you need a damage assessment permit before making flood repairs – July 2017
    - update: Kane County 24-hour rainfall totals, next comes flash flood Friday – July 2017
    - Sunday's deluge brings record high river levels in Algonquin; flood warning continues – July 2017
    - Fox River flooding: are we finally past the worst of it? – July 2017
    - health department: flood waters can contain fecal matter – July 2017
    - Kane County waiving damage assessment permit fees for flood-damaged homes – august 2017
    - FEMA team start flood damage assessments in Kane, Lake and McHenry and Cook – august 2017
    - FEMA initiates 90-day appeal period for St. Charles flood hazard determination maps – october 2017
- Kane County Office of Emergency Management
  - The OEM participated in community events throughout the year. These events allow our members the opportunity to speak with our residents one-on-one, explaining what personal preparedness is

and giving them information on how the community can achieve a higher level of preparedness.

- Elgin, City of
  - Attended the following events where members of the public were in attendance, a booth was set up that had a display targeting school age children with an "Enviroscape" model showing how pollution gets into our source water, as well as information regarding rain barrels, pollutant reduction and other stormwater management information for adults:
    - Public Works Open House
    - City's Earth Day Celebration
- St. Charles, City of
  - The City has continued to add content to a "Floodplain Page". Elevation certificates on file are available through the City's website, as well as FEMA Letters of Map Change. Also, there are numerous links to resources to assist residents with drainage concerns. The City mailed outreach letters to floodplain and repetitive loss property owners in 2017. The City mailed outreach letters to local lenders, real estate and insurance offices in 2017.

### **13. Plan Adoption**

Adopt this *Natural Hazards Mitigation Plan* by passing the resolution as listed in Section 10.4 or 10.5 of the plan, as appropriate.

Status:

- Kane County and many municipalities have adopted the current plan.

### **14. Mitigation Coordinating Committee**

The Natural Hazards Mitigation Planning Committee would be converted to a permanent advisory body in the County's resolution to adopt this *Plan*. It would:

- Act as a sounding board for hazard mitigation issues.
- Disseminate hazard mitigation ideas and activities to all participants.
- Monitor implementation of this Action Plan and.
- Report on progress and recommended changes to the County Board and each municipality.

Status:

- The Standing Committee met once during 2017 to review mitigation activities.
- The Kane County Division of Environmental & Water Resources continues to participate in the Natural Hazards Mitigation Committee, with staff member Cecilia Govrik serving as the committee co-chair through September 2017 and staff member Anne Wilford replacing Govrik on the committee in October 2017.

## 15. Community Rating System

Host a workshop to review floodplain management activities currently undertaken and those recommended by this *Plan*. Compare these activities to those credited under the Community Rating System.

### Status:

- Kane County Division of Environmental and Water Resources
  - Kane County's Division of Environmental & Water Resources staff met in April to discuss with IDNR officials the completion of the 2014 community assistance visit (CAV). Procedures for violations, working with the State's Attorney's office, and a process to achieve compliance with the County and Federal Floodplain guidelines are in process. The County will not be able to apply for the CRS program until the CAV is closed.
  - The Division of Environmental & Water Resources staff attended a CRS session at the Illinois Association for Floodplain and Stormwater Management (IAFSM) Conference in March 2017.
  - The Division of Environmental & Water Resources staff attended a CRS webinar hosted the Association for Floodplain and Stormwater Management (AFSM) in November 2017.
- Aurora, City of
  - The City has scheduled a Community Assistance Visit with IDNR and FEMA as the first step toward entering the Community Rating System.
- Carpentersville, Village of
  - The Village maintained its Class 6 designation, which provides properties located within the floodplain a 20% reduction in flood insurance premiums.
- Elgin, City of
  - Currently part of the CRS, and working towards improving the rating.
- North Aurora, Village of
  - The Village of North Aurora will be collecting information and discussing the program participation in greater detail in March of 2018 at the IAFSM conference.
- St. Charles, City of
  - The City of St. Charles is a participant in the Community Rating System. The City currently has a CRS rating of Class 5.