

McHenry County 2015-16 Hazard Mitigation Plan Update Public and Third Committee Meeting

Date/Time: March 3, 2016 / 1:30 PM

Place: McHenry County Mental Health Building
620 Dakota St., Crystal Lake, IL 60012

Attendees: See Sign-In Sheet (Attachment A)

Handouts:

1. 2010 Goals and Guidelines (Attachment B)
2. 2010 Mitigation Actions for Review/Update (Attachment C)
3. Mitigation Action Worksheet (Attachment D)

Items:

Molly O'Toole (Molly O'Toole and Associates) and Chris Ide (Stantec) facilitated the McHenry County 2015-16 Hazard Mitigation Plan Update Public Meeting and Third Committee Meeting. The purpose of the meeting was to provide an overview of the plan update to the public (including risk assessment and public survey results), and review and update existing actions and develop new actions with community stakeholders. No public showed up to the event, so this portion of the presentation served as an overview of the previous meetings. The second portion of the meeting was focused on the development of community action plans for Chapter 10 of the Mitigation Plan. The meeting began with an opening by Dave Christensen (McHenry County EMA), followed by a round-robin of introductions. The meeting had 37 participants on behalf of McHenry County EMA, local communities, and contractors (see attachment A). Following introductions Ms. O'Toole and Chris Ide (Stantec) presented a PowerPoint presentation covering the following items:

- Plan Update Overview
- Public Survey Results
- Risk Assessment Results and Rankings
- Flood Insurance and Repetitive Loss Statistics
- Mitigation Plan Goals and Action Strategies
- Review and Update of Existing Actions
- Develop New Hazard Mitigation Actions
- Schedule/Next Steps

Plan Update Overview

Ms. O'Toole reviewed DMA 2k and CRS planning steps and provided an overview of where we are going. Currently we are discussing mitigation strategies and developing a draft action plan. The next steps are to finalize the draft hazard mitigation plan and get it out for committee and public review. Once that is complete, the Illinois Emergency Management Agency (IEMA) will review the plan before sending it to FEMA for their review.

Public Survey Results

Mr. Ide presented select results from the public survey. This began with an overview of the methods used to advertise the survey and the types of devices used to complete the survey. The survey was active for approximately 2-months and received a total of 201 responses, approximately 74% of which came from the Village of Cary. Based on the preliminary survey results, the following was noted:

- Respondents felt that the following posted the greatest threat to their community:
 - Tornados (49.8%)
 - Winter Storms – Snow (11.4%)
 - Thunderstorms – Microburst (10.5%)
 - Flooding – (10.0%)
 - It was noted that the lower priority given to flooding may be a result of minimal flooding in the Village of Cary, where most of the respondents came from
- Just over half of the respondents feel somewhat prepared for natural hazards to occur
- The most important priorities for the respondents include:
 - Protect Lives (99.99%)
 - Protect Critical Facilities Property (90.6%)
 - Protect Utilities (88.6%)
 - Promote cooperation between agencies, businesses, non-profit organizations, and neighboring jurisdictions (77.6%)
 - Enhance Emergency Services (75.6%)
 - Protect Private Property (69.7%)
 - Protect New Development in Hazard Areas (51.2%)
- Having a flashlight and batteries was most widely taken step by respondents towards prepare for a natural disaster
- A majority of respondents were interested in making their homes more resistant to hazards (84.1%)
- A majority of respondents feel their community is doing a fair job of making people aware of the natural hazards they may face. McHenry County noted that they would like to see more people in the Good and Excellent category. This was suggested as a possible action item.

Risk Assessment Results and Rankings

Ms. O'Toole provided an overview of the risk assessment results. It was emphasized that what was being presented was a high level approach compared to what could be found in the plan. Each hazard provided hazard highlights such as previous occurrences, probability, potential impacts and losses.

The results of the hazard identification process were used to generate a Priority Risk Index (PRI), which categorizes and prioritizes potential hazards as high, moderate, or low risk based on

probability, impact, spatial extent, warning time, and duration. The ranking of hazards was presented making special note that Drought was moved up from a Moderate to High Risk Hazard based on discussions from our 2nd Committee Meeting. The results of the various hazards are as follows:

- High Risk Hazards
 - Severe Winter Storm
 - Flood
 - Tornado
 - Severe Thunderstorm
 - Drought
- Moderate Risk Hazards
 - Extreme Heat
- Low Risk Hazards
 - Earthquake
 - Dam Failure

It was noted that extreme heat is a moderate risk hazard due to the fact that McHenry County does not have a large urban center, such as the City of Chicago, so heat is able to dissipate more in the evenings. And, although earthquakes are possible, the occurrence of any catastrophic earthquake is highly unlikely.

Flood Insurance and Repetitive Loss Statistics

Ms. O'Toole provided an overview of repetitive flood loss properties within the County according to FEMA data. There are 76 total repetitive loss properties identified spread out among 11 jurisdictions. The repetitive loss properties were also broken up into 33 repetitive loss areas that include a total of 400 homes. These are homes that are not considered repetitive loss necessarily, but potentially have higher risk of flooding due to their geographical distance from a repetitive loss property.

Ms. O'Toole also discussed flood insurance claims over the past 38 years. In total there have been 680 total claims, with \$5.7 million in total claims paid out (not adjusted for inflation). Of this, 145 properties had claims with a total payout of \$2.519 million in 2013 alone. In total there are 1,693 active flood insurance policies in McHenry County. Ninety-three of these properties have more than one claim over \$1,000, showing that many of the properties have claims less than \$1,000. Thirty-six properties have 3 or more claims. These figures do not consider the deductibles that homeowners have to pay prior to receiving payment. It was also noted that deductibles have been increasing in recent years.

Mitigation Plan Goals and Action Strategies

Mr. Ide then gave an overview of the mitigation strategy, explaining that it includes goals, actions, and the action plan. He discussed various examples that are considered mitigation actions, and explained the 3 step process needed to complete the mitigation strategy:

1. Review and update existing actions
2. Evaluate potential hazard mitigation actions

3. Develop new hazard mitigation action(s)

Mr. Ide also explained that potential actions should be evaluated based on several factors including:

- Social concerns
- Technical feasibility
- Administrative capabilities
- Political feasibility (public support)
- Legal authority
- Economic (cost)
- Environmental issues

Ms. O'Toole then went through each action of the McHenry County 2010 Mitigation Actions (for review/update) packet with the community stakeholders present, and asked them to provide a status for each action: in progress, completed, deleted, or deferred. It was recommended that the packets be turned in before they left, but if necessary they could review and return them by **March 11, 2016**.

Develop New Hazard Mitigation Actions

Mr. Ide finally explained that the mitigation action worksheet could be used to submit potential new actions. At the conclusion of the meeting, the community stakeholders present worked on new actions prior to leaving. The majority of communities present turned in the review of the 2010 action items. All worksheets (review of 2010 action items and new actions items) needed to be returned by **March 11, 2016**.

Schedule/Next Steps

- Communities are to complete the following by **March 11, 2016**:
 - Review action items from 2010, and provide a status of in progress, completed, deleted, or deferred.
 - Develop new actions (at least one per community)
- The draft plan will go out for committee and public review in April/May.

McHenry County Hazard Mitigation Meeting - Public Meeting

Attachment A

Date 3-3-16

Initial	Name	Affiliation	Email	Phone
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McHenry County Hazard Mitigation Meeting - Public Meeting

Date 3-3-16

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McHenry County – Natural Hazard Mitigation Strategies

Preventive Measures

Preventive mitigation measures are aimed at protecting new construction from hazards and to help ensure that future development does not increase potential losses to existing development or to community assets. Building, planning, zoning, and/or code enforcement offices administer preventive measures. Preventive measures include but are not limited to the following:

- Building Codes
- Standards for Manufactured Homes
- Planning and Zoning
- Subdivision Regulations
- Comprehensive Stormwater Management

4.7 Preventive Measures Conclusions

1. Building codes are the prime preventive measure for tornadoes, high winds, snow storms, and earthquakes. Rigorous enforcement of the latest available building codes, with an adequately trained staff provides a more sustainable community.
2. The County and nearly all communities have adopted the International Code series, which provides better protection from natural hazards. However, according to the Institute for Building and Home Safety, the International Residential and Building Codes do not adequately protect new construction from damage by tornadoes (wind) and hail.
3. Based on the national Building Code Effectiveness Grading Schedule (BCEGS), administration of building codes in McHenry County is generally good. BCEGS Class 5 is recognized by CRS as a minimum requirement for better CRS classes. Most communities have residential and commercial ratings of 5 and better.
4. State administration of the installation of mobile or manufactured homes does not guarantee that they will be adequately tied down or protected from flooding and other hazards.
5. Limited attention is given to the construction of critical facilities in the floodplains.
6. The majority of the comprehensive and land use plans address floodplains and the need to preserve these hazardous areas from intensive development. However, many zoning ordinances do not designate floodprone areas for any special type of land use.
7. It is unknown what percent of the county's floodplains are open space and/or in public ownership.
8. The McHenry County Stormwater Management Ordinance's provisions for stormwater management, floodplain development, soil erosion and sediment control, and wetland, riparian and water quality protection, meet and exceed minimum national and State standards.

4.8 Preventive Measures Recommendations

The following preventive measure recommendations were identified by the Mitigation Committee:

1. The public, developers, builders, and decision makers should be informed about the hazard mitigation benefits of building codes and the McHenry County Stormwater Management Ordinance.
2. Communities that have not adopted the International series of codes should do so, and on a regional basis, municipal and County code enforcement staffs should work together to develop building code language to strengthen new buildings against damage by high winds, tornadoes and hail,
3. All communities should work to improve code administration and enforcement, and should also be trained on implementing the codes that are applicable to hazard mitigation.
4. The County and municipalities that participation in the NFIP should ensure that they fully and properly administer and enforce the requirements of the NFIP, and fully enforce all provisions of the Countywide Stormwater Management Ordinance.
5. The adequacy or current requirements for manufactured home and recreational vehicle parks for protection from natural hazards should be examined, especially concerns pertaining to placement in flood prone areas, tie downs and sheltering.
6. On a regional basis, municipal and County planning and engineering staff should develop example subdivision ordinance language that requires new infrastructure to have hazard mitigation provisions, such as secondary access to subdivisions.
7. Municipal comprehensive plans, land use plans and zoning ordinances should incorporate open space provisions that will protect properties from flooding and preserve wetlands, groundwater quality and recharge, and farmland.
8. The McHenry County should continue to enforce all aspects of the Stormwater Management Ordinance. The County should also maintain the TAC.
9. Offices responsible for design, construction or permitting critical facilities should ensure that the design accounts for natural hazards and adjacent land uses.
10. Communities (certified and non-certified) need to understand and consistently enforce the McHenry County Stormwater Management Ordinance provisions. The McHenry County Technical Advisory Committee should continue their efforts in these areas.
11. McHenry County and municipalities should consider joining the NFIP's CRS program. For the municipalities already involved in CRS, they should work to improve their CRS class.

Property Protection

Property protection mitigation measures are used to modify a building or a property that is subject to a hazard in order to reduce potential damage. Property protection measures fall under the following approaches:

- Modify the site to keep the hazard from reaching the building
- Modify the building (retrofit the building) so it can withstand the impacts of the hazard
- Insure the property to provide financial relief after the damage occurs

5.6 Property Protection Conclusions

1. Property protection measures for natural hazards are important for McHenry County given the number of hazards and the number of buildings for which the County is at risk.
2. There are several ways to protect individual properties from damage by natural hazards. The advantages and disadvantages of each should be examined on a building by building basis.
3. Property owners can implement some property protection measures at little cost, especially for sites in areas of low hazards (e.g., shallow flooding, seepage, sewer backup, summer, and winter storms).
4. For other measures, such as relocation, elevation and safe rooms, the owners may need financial assistance.
5. Most property protection projects should be voluntary, but in some circumstances, projects should be required (per ordinances).
6. Government agencies can promote and support property protection measures through activities ranging from financial incentives to public information.
7. The County is unable to determine if government properties, including critical facilities, have measures to protect them from flooding, tornadoes, and other natural hazards.
8. About 1,800 of the buildings in the County's floodplains are covered by flood insurance.
9. The availability of tornado shelters or safe rooms in McHenry County manufactured home communities is unknown.
10. Addressing the repetitive flood loss problem can lead to assisting a number of other families on protection themselves from future floods.

5.7 Property Protection Recommendations

1. Available property protection public education materials should be consolidated and tailored for McHenry County. Materials should address measures that can help owners reduce their exposure to damage by natural hazards and the various types of insurance coverage that are available.
2. Repetitive flood loss areas should be further investigated and mitigated.
3. All property owners should be encouraged to determine if they are adequately insured for natural hazards.

4. All buildings and critical facilities in the floodplain, with priority given to buildings or facilities in the floodway, should be mitigated, to the extent that the measures are cost effective and feasible.
5. A standard checklist should be developed to evaluate a property's exposure to damage from the hazards most prevalent in McHenry County. The checklist should be provided to each agency participating in this planning process and made available to the general public.
6. Each public entity should evaluate its own properties using the standard checklist. A priority should be placed on determining critical facilities' vulnerability to damage and whether public properties are adequately insured.
7. Each public entity should protect its own publicly-owned facilities with appropriate mitigation measure(s), except where efficiencies allow for joint funding and joint projects.
8. The County and municipalities should consider the feasibility of providing information and technical advice to floodplain property owners for protecting their property.
9. Structural elevation or acquisition alternatives should be investigated for flood prone properties when a regional project is not feasible.
10. Feasible structural elevation or acquisitions should be funded through grants or through capital funding.
11. Positive incentives should be maintained and created by the County and municipalities to encourage property protection by property owners. Communities should consider cost-sharing programs, such as rebates, to encourage low cost property protection.
12. McHenry County should seek property protection financial assistance for flood and tornado mitigation projects for properties at risk.
13. The availability of tornado shelters or safe rooms in McHenry County should be investigated
14. Safe rooms should be constructed wherever needed in McHenry County with priority given to schools and critical faculties.

Structural Projects

Structural projects are projects that are constructed to protect people, buildings and infrastructure from damage due to natural hazards. Structural projects are the third of six overall mitigation strategies examined in this Plan. Preventing damage due to flooding is the primary focus of structural projects. Structural projects are usually funded by public agencies. Structural projects keep flood waters away from buildings or an area by constructing barriers, by storing floodwater elsewhere, or by redirecting flood flows. Large structural flood control projects are most often planned, funded and implemented at a regional level by agencies, such as the Illinois Department of Natural Resources, Office of Water Resources (IDNR-OWR), the U.S. Army Corps of Engineers, the USDA Natural Resources Conservation Service. Many projects are jointly planned and funded between these agencies in cooperation with counties and/or municipalities.

Six approaches are reviewed in this chapter:

- Reservoirs and detention
- Levees and barriers
- Channel improvements and diversions
- Crossings and roadways
- Drainage and storm sewer improvements
- Drainage system maintenance

6.1 Structural Projects Conclusions

1. The McHenry County Stormwater Management Program is important to McHenry County and its municipalities.
2. Structural projects, including reservoirs, channel improvements and levees, can be effective in reducing flood damage in McHenry County, to the extent that they have been tested, though it is understood that structural projects can have adverse impacts on downstream properties and on the environment.
3. Structural projects can be effective in protecting critical facilities from natural hazards.
4. There are a number of locations throughout McHenry County where bridge openings or culverts are impeding flood flows, and roadways that have flooded in the past.
5. Local drainage and stormwater flooding (both in and outside the floodplain) could be reduced through drainage system improvements.
6. Stream maintenance, in most areas of the County is lacking. Both channel erosion and additional flooding may be a result of inadequate maintenance.
7. Drainage maintenance programs in communities are important throughout the County.

6.2 Structural Projects Recommendations

1. Watershed studies should be developed for McHenry County as part of the countywide stormwater management program.
2. Structural flood control projects, including drainage and bridge and culvert improvements, should be pursued for McHenry County, but incorporate protecting the natural functions of the stream and floodplain, in addition to flood protection. Priority areas include:
 - Coon Creek
 - Boone Creek
 - Nippersink Creek
 - Areas in Algonquin, Union, Spring Grove and Nunda Township
3. Opportunities for stream or natural area restoration should be sought with structural projects.
4. The McHenry County Stormwater Management program should continue to be funded through appropriate funding mechanisms.
5. Each municipality and the County should implement a formal and regular drainage system maintenance program.
6. Funding for municipal or regional structural measures in McHenry County should be sought as it is made available through FEMA hazard mitigation programs.
7. Flood problem areas in McHenry County that should be considered for structural mitigation are not limited to those identified in this Plan. Flood problems should be addressed as they are identified.

Resource Protection

Resource protection activities are generally aimed at preserving, or in some cases restoring, natural areas. Resource protection activities enable the naturally beneficial functions of the land and water areas to be better realized. Natural and beneficial functions of watersheds, floodplains and wetlands include the following:

- Reduction in runoff from rainwater and snow melt in pervious areas
- Infiltration that absorbs overland flood flow
- Removal and filtering of excess nutrients, pollutants, and sediments
- Storage of floodwaters
- Absorption of flood energy and reduction in flood scour
- Water quality improvement
- Groundwater recharge
- Habitat for flora and fauna
- Recreational and aesthetic opportunities

7.9 Resource Protection Conclusions

1. A hazard mitigation program can utilize resource protection programs to support protecting areas and natural features that can mitigate the impacts of natural hazards.
2. Preserving farmland in the floodplain and other hazardous areas will prevent damage to homes, businesses and other development.
3. Preventive measures can have a great impact on the future flood damages, especially if the county's floodplains remain undeveloped and preserved as open space.
4. A number of communities have an ordinance that prohibits dumping in wetlands or other parts of the drainage system. The degree of enforcement of these ordinances is unknown.
5. Groundwater protection is a high priority in McHenry County.
6. Community forestry programs can be effective against damage and power losses from wind and ice storms. Communities should have urban forestry programs in place that can be effective against damage and power losses from wind and ice storms.
7. McHenry County is rich in historic and natural areas, which should be protected from natural hazards..

7.10 Resource Protection Recommendations

1. Each community should ensure that it has enforceable stream and wetland dumping regulations.
2. Municipal comprehensive plans, land use plans and zoning ordinances should incorporate open space provisions that will protect properties from flooding and preserve wetlands and farmland.
3. The public and decision makers should be informed about the hazard mitigation benefits of restoring rivers, wetlands and other natural areas.

4. The public should be informed about the need to protect streams and wetlands from dumping and inappropriate development and the relevant codes and regulations.
5. When opportunities become available, resources should be directed towards stream restoration, to protect and enhance the riparian environment, to protect against unnatural erosion, and to increase recreation benefits.
6. The County and municipalities should implement the water quality and groundwater protection measures recommended by the McHenry County Groundwater Protection Action Plan.
7. McHenry County should continue to encourage conservation design approaches such as cluster development and other “low impact” approaches.
8. Communities should implement an urban forestry program that qualifies them to become a Tree City, USA.
9. Myths about mosquitoes and wetlands (and open water) should be dispelled.

Emergency Services

Emergency service measures protect lives and property. Emergency service functions can be included in the broad categories of preparedness, warning, response, and recovery. Attention to these facets of emergency services prior to a hazard event or disaster is another mitigation strategy.

A good emergency management program addresses natural hazards, and it involves all municipal and/or county departments. This chapter reviews emergency services measures, following their chronological order of identifying an oncoming problem (threat recognition), responding to an emergency, through post-disaster activities.

8.7 Emergency Services Conclusions

1. Emergency management planning in the County is ongoing and a number of municipalities are in the process of developing their own EOPs.
2. Numerous mutual aid agreements are in place throughout the County.
3. The flood threat recognition system should be improved. The rain and stream gage network is generally good but additional gaging is needed in tributary watersheds to the Fox River and Kishwaukee River.
4. The threat recognition system for severe weather hazards (tornadoes, thunderstorms, and winter storms) for the County is relatively good.
5. The procedures and media that the County and municipalities use to disseminate warnings are generally comprehensive.
6. Schools, hospitals, nursing homes, and government buildings have NOAA weather radios.
7. Outdoor warning systems in a number of areas of the County may be inadequate.
8. Mobile home parks (discussed in Chapter 5) are without warning systems.] The availability to tornado shelters or safe rooms at McHenry County manufactured home communities is unknown.
9. Some emergency response plans do not cover critical facilities that will be affected by various types of hazards.

8.8 Emergency Services Recommendations

10. Continue to update emergency operations plans for the County, and continue to develop municipal emergency operations plans with a NIMS compliant template.
11. All identified critical facilities in the County should be mapped using the County's GIS mapping for planning, warning and response purposes. The County should continue their efforts to determine critical facilities located in flood prone areas.
12. Continue work for NIMS compliance for the County and all municipalities, and provide training on NIMS and ICS for all first responders and other identified personnel for compliance.
13. Emergency operations centers at the County and in municipalities should be evaluated for effectiveness and functionality, and modified appropriately. The County and all

- municipalities should have a fully operational emergency operations center and a secondary location.
14. Conduct annual emergency response training exercises. Look for multi-jurisdiction training opportunities.
 15. Develop a disaster recovery strategy for the County and municipalities that includes the identification of mitigation efforts.
 16. All parcels in the floodplain should be identified using the County's GIS mapping for planning, warning and response purposes.
 17. Investigate adequacy and research funding opportunities for emergency warning and response equipment, including outdoor weather warning sirens, generators for critical facilities, and other warning systems.
 18. Response procedures for floods and other hazards should be incorporated in all emergency operations planning and response where appropriate. For example, public works department pre-identify sandbag staging locations for residents.
 19. All communities should strive to obtain a StormReady designation.
 20. Develop flood stage maps for the County's major streams to make use of gaging networks, warning systems and GIS mapping capabilities.
 21. Research funding for additional rainfall and river gages. Also the County and community should look to expand the National Weather Service observer's network.
 22. Continue use and funding of the County's Reverse-911 system and utilize other applications of that system for natural hazard warning and response.
 23. Develop emergency transportation plans that allow for emergency coordination and evacuation (routing).

Public Information

Mitigation of all natural hazards can be accomplished through effective public information activities. This is also true for addressing health issues and pandemics. Public information activities advise property owners, renters, businesses, and local officials about hazards and ways to protect people and property. These activities can motivate people to take the steps necessary to protect themselves and others. A successful hazard mitigation program involves a public information strategy and involves both the public and private sectors.

9.6 Public Information Conclusions

1. Public information programs are important so that people and businesses are more aware of the hazards they face and how they can protect themselves. Some public information efforts are currently being implemented by McHenry County, McHenry County municipalities and townships, FEMA, IEMA, and the American Red Cross.
2. Community outreach projects, libraries and web sites can reach a lot of people, but only a moderate amount of information is being provided on natural hazards.
3. Mitigation efforts are being implemented made by communities (e.g., building codes and the countywide stormwater ordinance), but little information is being provided to property owners to describe these current mitigation activities and actions.
4. The Mitigation Committee assessed a variety of topics and determined that for McHenry County the most important topics to cover in public information activities are:
 - a. Emergency protection measures
 - b. Safety precautions during storms and tornadoes
 - c. Safety hazards during and after floods
 - d. Protecting property against flood damage
 - e. Water quality issues
5. The most appropriate ways to get the messages out are:
 - a. Community newsletters
 - b. Newspaper articles
 - c. Web sites and links to other sources
 - d. Handouts at public places
6. All communities in McHenry County implement public information activities. By making a few changes and formalizing the activities, a community can earn nearly 500 points under the Community Rating System.

9.7 Public Information Recommendations

1. The following topics should be covered in public information activities.
 - a. Safety and emergency protection measures
 - During thunderstorms and lightning
 - During tornadoes

- During floods
 - During winter storms
 - b. Protecting your property
 - From flood damage
 - Floodproofing
 - Local drainage issues
 - Sources of assistance
 - c. Understanding floods
 - Why there are floods
 - Why we regulate the floodplain
 - Flood insurance
 - d. Other:
 - Protecting our watersheds
 - Protecting water quality
 - Water conservation
2. Each County office, municipality and township should review their current public information activities and incorporate the above messages in them, where appropriate.
 3. Public information for hazard mitigation should be coordinated with the McHenry County Health Department in order to combine resources and messages for natural hazards and health concerns related to pandemic or disasters.
 4. Publications developed by other agencies should be reviewed, consolidated, and tailored for distribution to McHenry County property owners. A set of countywide publications should be developed that can be used by communities as is, but developed in a format that allows communities to customize the material.
 5. Sample articles, with illustrations, on these topics should be prepared and distributed to all interested parties, such as public information offices, webmasters, permit offices, reception desks, and neighborhood organizations.
 6. Community newsletters, newspapers, web sites, handouts, and mailings should be used to convey these messages. They are listed in priority order as recommended by the Mitigation Committee.
 7. The County should provide an order form for local libraries to order free state and federal hazard mitigation publications.
 8. Community web sites should include information and links to other sites to cover as many topics as possible.
 9. Communities in the National Flood Insurance Program should provide floodplain information for property owners.

Attachment C



McHenry County 2010 Mitigation Actions (for review/update)

Jurisdiction Name Completing this worksheet: _____

INSTRUCTIONS: Please update the actions for the 2015 plan update.

Jurisdiction: Determine if the actions below are applicable to your jurisdiction begin with action #3.

- If yes:
 - Indicate your community name in the jurisdiction row
 - Provide a description of "in-progress", "completed", "deleted", "deferred" or "Not Applicable" in the 2015 Status row
 - Provide a short explanation of why the status was chosen
 - Identify the responsible party
 - Ensure the remaining information is consistent.
- If no:
 - Indicate "N/A" in the 2015 Status row

Action 1: Plan Adoption	Details
Project Description	Adopt the plan
Hazard(s) Addressed:	All
Jurisdiction:	All
Type/Category:	Prevention, Public Education/Awareness
Estimated Cost:	Staff Time
Estimated Benefits:	Adoption of the Plan ensures County, municipalities, townships and other agencies are authorized to implement the action items with available resources. Adoption is also a requirement for recognition of the Plan by mitigation funding programs, including the Disaster Mitigation Act of 2000, the FEMA Flood Mitigation Assistance Program and the National Flood Insurance Program's Community Rating System
BCR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	6 Months
Responsible Parties:	County Board, City Councils, Village Boards, Boards of Trustees, and other agencies
Priority:	High
2015 Status:	The action was completed for the previous (2010) version of this plan. <u>Status/Notes:</u> The 2015 version of this plan will be adopted.

McHenry County 2010 Mitigation Actions (for review/update)

Action 2: Continuation of Mitigation Committee	Details
Project Description	Convert County's Hazard Mitigation Committee to a permanent advisory body with the ability to act as a forum for mitigation issues; disseminate actions, ideas, and activities to all participants; encourage public participation; ensure incorporation of Plan's goals and guidelines into other planning documents; monitor plan implementation; and report plan progress and recommend changes to County Board, each municipality, and townships.
Hazard(s) Addressed:	All
Jurisdiction:	All
Type/Category:	Prevention, Public Education/Awareness
Estimated Cost:	Staff Time
Estimated Benefits:	The benefit is better implementation of this Plan, plus a more comprehensive mitigation program in McHenry County. This approach also provides a mechanism for continued public involvement (e.g., Mitigation Committee activities posted on the County web site).
BCR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	Ongoing
Responsible Parties:	McHenry County Mitigation Committee <u>County Departments:</u> Board, Administrator, EMA, Planning and Development, Transportation, GIS, Health, Water Resources <u>Municipalities' Departments:</u> Emergency Management, Other Designated Departments <u>Townships:</u> Main Office, Road District, Fire District
Priority:	High
2015 Status:	The action was completed for the previous (2010) version of this plan. <u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 3: Plan Monitoring and Maintenance	Details
Project Description	<p>The Mitigation Committee will hold annual meetings to evaluate and monitor progress on implementation. Public participation is encouraged (public can attend and/or provide comments and meeting will be publicized in print and online).</p> <p>The Mitigation Committee will also determine if other mitigation issues or efforts based on hazard events or public input should be added to the plan. These actions will be added to the plan during the five year revision required by FEMA.</p> <p>The Mitigation Committee Chair will provide an annual evaluation report based on the meeting and provide it to the County Board</p>
Hazard(s) Addressed:	All
Jurisdiction:	All
Type/Category:	Prevention, Public Education/Awareness
Estimated Cost:	Staff Time
Estimated Benefits:	A monitoring system helps ensure that responsible agencies continue to be aware of their assignments. The Plan should be evaluated in light of progress, changed conditions, and new opportunities.
BCR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	Annually
Responsible Parties:	<p>McHenry County Mitigation Committee</p> <p><u>County Departments:</u> Board, Administrator, EMA, Planning and Development, Transportation, GIS, Health, Water Resources</p> <p><u>Municipalities' Departments:</u> Emergency Management, Other Designated Departments</p> <p><u>Townships:</u> Main Office, Road District, Fire District</p>
Priority:	High
2015 Status:	<p>The action was completed for the previous (2010) version of this plan.</p> <p><u>Status/Notes:</u></p>

McHenry County 2010 Mitigation Actions (for review/update)

Action 4: Watershed Studies	Details
Project Description	McHenry County should pursue comprehensive watershed studies. This effort will foster the understanding of impact of development on existing flood problems and identify ways to reduce future flood problems. Watershed studies should also evaluate wetlands and water quality impacts of development and other activities in McHenry County.
Hazard(s) Addressed:	Flooding
Jurisdiction:	
Type/Category:	Prevention; Natural Resource Protection; Structural Projects
Estimated Cost:	\$500,000
Estimated Benefits:	All residents will benefit from the understanding of the County's watersheds, and this effort will allow for a cost-effective approach to addressing existing and future flood problems. Efforts will provide for the protection of property, reduced transportation disruption, and improved health and safety during minor and major flood events.
BCR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	36 Months
Responsible Parties:	
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 5: Expand Stream Gaging Network	Details
Project Description	McHenry County should pursue the installation and maintenance of additional stream gages throughout the county. Additional assistance should be sought from the Illinois Department of Natural Resources and the U.S. Geological Survey for funding and technical assistance.
Hazard(s) Addressed:	Flooding
Jurisdiction:	
Type/Category:	Prevention; Structural Projects; Emergency Services
Estimated Cost:	\$50,000
Estimated Benefits:	The availability of more extensive river stage data will benefit the County in a number of ways. These benefits include, better calibration data for the development of watershed models (studies), improved flood forecasting, and additional data for operation of Stratton Dam.
BCR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	12 Months
Responsible Parties:	County Departments: Planning and Development, Stormwater, and assistance from IL DNR and USGS
Priority:	High
2015 Status:	Status/Notes:

McHenry County 2010 Mitigation Actions (for review/update)

Action 6: Stream Maintenance Programs	Details
Project Description	Develop/implement formal and regular drainage system maintenance programs, including the inspection of privately maintained drainage facilities. Each municipality and township will make considerations based on available staffing and financial resources. Both urban and rural streams are in need of maintenance. Bridges and culverts (active or abandoned) restricting flood flows should be evaluated. The removal or enlargement of stream crossings, in cases where a modification will not cause an increase in downstream flooding, should be considered and funded.
Hazard(s) Addressed:	Flooding
Jurisdiction:	
Type/Category:	Property Protection; Natural Resource Protection; Structural Projects
Estimated Cost:	Staff and equipment
Estimated Benefits:	Development and agriculture have led to a reduction of stream capacity, and upstream flooding as a result may be increasing. A restoration of stream capacity may mitigate upstream damage, and enhance stream and water quality. Regular maintenance can protect both structures and property. Regular maintenance can also be more cost effective than major maintenance efforts that are done on an as-needed basis
BCR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	36 Months
Responsible Parties:	
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 7: Prohibited Waterway Dumping Ordinances	Details
Project Description	Each community should ensure that they have enforceable stream and wetland dumping ordinances. Regulations should apply to both "objectionable waste" and "non-objectionable" materials such as grass clippings and tree branches. Communities that do not have stream and wetland dumping ordinances should adopt appropriate regulations.
Hazard(s) Addressed:	Flooding
Jurisdiction:	
Type/Category:	Property Protection; Natural Resource Protection
Estimated Cost:	Community Specific
Estimated Benefits:	Keeping streams, including drainage ditches, free of debris and dumped material benefits the stream's ability to convey water, reduced erosion and sedimentation, protects the riparian environment, protects water quality, and can reduce flood damage.
BCR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	36 Months
Responsible Parties:	<u>County Departments:</u> Planning and Development, <u>Municipalities' Departments:</u> Designated Departments
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 8: Mitigation of Public Infrastructure	Details
Project Description	Mitigation of public infrastructure, including roadways, bridges and culverts, and treatment facilities, for protection from natural hazards should be investigated as the facility or asset is being considered for repair, replacement or expansion. When possible, improvements should incorporate protecting the natural functions of the streams and floodplains, if located in a floodplain.
Hazard(s) Addressed:	All Hazards (with specific emphasis on flooding)
Jurisdiction:	
Type/Category:	Property Protection; Emergency Services
Estimated Cost:	Project Specific
Estimated Benefits:	Regional solutions to flood problems are often more cost beneficial than the mitigation of individual buildings. Also, when flooding on streets and the overtopping of bridges is reduced, then the entire community benefits. Transportation damages are reduced and safety is improved.
CBR (assumed to be cost effective?)	N/A
Potential Funding Sources:	N/A
Time Frame:	As funding is available
Responsible Parties:	<u>County Departments:</u> EMA, Planning and Development, Stormwater, Transportation <u>Municipalities' Departments:</u> Emergency Management, Other Designated Departments <u>Townships:</u> Main Office, Road District, Fire District
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 9: Continued NFIP Compliance	Details
Project Description	Municipalities that participate in the National Flood Insurance Program (NFIP) should ensure that they are in full compliance with the NFIP administration and enforcement requirements. While the McHenry County Planning and Development Department administers the McHenry County Comprehensive Stormwater Ordinance for non-certified municipalities, all NFIP municipalities are still ultimately responsible for ensuring that development within the regulatory floodplain meets the NFIP minimum standards.
Hazard(s) Addressed:	Flooding
Jurisdiction:	All (note: Bull Valley, Oakwood Hills, and Trout Valley are not NFIP participants)
Type/Category:	Prevention; Property Protection
Estimated Cost:	Staff Time
Estimated Benefits:	Community compliance with the NFIP is essential
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	Ongoing
Responsible Parties:	<u>County Departments:</u> Planning and Development <u>Municipalities' Departments:</u> NFIP Administrators
Priority:	High
2015 Status:	The action was completed for the previous (2010) version of this plan. <u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 10: Repetitive Loss Areas Study	Details
Project Description	Repetitive flood loss areas (identified as part of this Plan) should be studied and mitigation alternatives, such as acquisition, elevation or floodproofing, identified and investigated for the structures. The County or municipalities should seek a mitigation planning grant as needed for preparing the repetitive loss areas studies.
Hazard(s) Addressed:	Flooding
Jurisdiction:	County and Municipalities where Repetitive Loss Areas are located
Type/Category:	Property Protection
Estimated Cost:	\$100,000
Estimated Benefits:	Property owners subject to repetitive flood losses will directly benefit from this action as they learn of ways that they can protect themselves from future flood damage. This effort will also lead to the request for FEMA funding for mitigation measures within the repetitive flood loss areas, and the removal or protection of repetitive flood loss structures will benefit all levels of government and the National Flood Insurance Fund.
CBR (assumed to be cost effective?)	N/A
Potential Funding Sources:	N/A
Time Frame:	24 Months
Responsible Parties:	McHenry County Planning and Development Department with the cooperation of municipalities with properties included in the repetitive loss areas
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 11: Identification of Floodplain Structures	Details
Project Description	In addition to examining repetitively flood loss areas, a comprehensive list of structures located in the County's floodplains should be developed. Through GIS and examining building footprints, the numbers and types of structures in the floodplain can be determined. The list should include critical facilities that potentially need flood protection.
Hazard(s) Addressed:	Flooding
Jurisdiction:	All
Type/Category:	Prevention; Property Protection; Natural Resource Protection; Emergency Services
Estimated Cost:	\$100,000
Estimated Benefits:	The countywide stormwater management program and hazard mitigation effort would benefit from a full picture of the number of McHenry County floodplain properties. Appropriate property protection measures could be better identified through this information. Also, having this information would allow municipalities to provide public information materials directly to these property owners.
CBR (assumed to be cost effective?)	N/A
Potential Funding Sources:	N/A
Time Frame:	36 Months
Responsible Parties:	<u>County Departments:</u> Planning and Development, Stormwater, GIS
Priority:	High
2015 Status:	Not completed as of 2015 plan update <u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 12: Investigation of Critical Facilities	Details
Project Description	An investigation/analysis of the critical facilities mapped in the County's GIS as part of this Plan should be conducted to determine if buildings or facilities are located in hazardous locations (floodplains or otherwise). Additional critical facility data should be collected and added to the GIS layers. Emergency managers should provide input on mapping and data formats that would enhance emergency preparedness, response and recovery in the county. The investigation should also identify critical facilities that should be protected from identified natural hazards.
Hazard(s) Addressed:	All (specific emphasis on flooding)
Jurisdiction:	All
Type/Category:	Property Protection; Emergency Services
Estimated Cost:	\$100,000
Estimated Benefits:	This review of critical facilities and any mitigation efforts will benefit McHenry County through preparedness, response and recovery.
CBR (assumed to be cost effective?)	N/A
Potential Funding Sources:	N/A
Time Frame:	24 Months
Responsible Parties:	<u>County Departments:</u> EMA, Planning and Development, GIS <u>Municipalities' Departments:</u> Emergency Management <u>Townships:</u> Main Office, Road District, Fire District <u>Other:</u> Federal and state agencies responsible for critical facilities
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 13: Critical Facilities Design with Natural Hazards Protection	
Details	
Project Description	Offices responsible for design, construction or permitting critical facilities, including federal, state, county and municipal agencies, and institutions should ensure that the design or modification of critical facilities accounts for all natural hazards and adjacent land uses. Critical facilities in the floodplain should be protected to the 500-year flood event.
Hazard(s) Addressed:	All (specific emphasis on flooding)
Jurisdiction:	
Type/Category:	Prevention; Emergency Services
Estimated Cost:	Staff Time
Estimated Benefits:	This Plan expanded the list of critical facilities to include school, places of assembly, and other assets that are significant in the county during times of natural disasters. These may be shelters, or places of concentrated populations. If these facilities are better protected, then the risk for life, health and safety is reduced.
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	Ongoing
Responsible Parties:	<u>County Departments:</u> EMA, Planning and Development, Stormwater <u>Municipalities' Departments:</u> Emergency Management <u>Townships:</u> Main Office, Road District, Fire District <u>Other:</u> Federal and state agencies responsible for critical facilities
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 14: Mitigation of Floodplain Properties - Property Protection Projects	
	Details
Project Description	Properties that are exposed to flood damage throughout McHenry County should be protected through property protection measures where regional structural projects are not feasible. Property protection measures should include, but not be limited to, acquisition, elevation, or floodproofing. Priority should be given to repetitive loss properties, but all floodplain properties including critical facilities should be included.
Hazard(s) Addressed:	Flooding
Jurisdiction:	
Type/Category:	Property Protection
Estimated Cost:	Identified per project
Estimated Benefits:	Properties will be protected from future flooding. Also the exposure of the National Flood Insurance Fund will be reduced. There will also be a reduction in Emergency Services as structures are protected or removed from flood prone areas.
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	Ongoing
Responsible Parties:	<u>County Departments:</u> Planning and Development, Stormwater Management, GIS <u>Municipalities' Departments:</u> Stormwater Management and NFIP Administrators <u>Other:</u> Federal and state agencies responsible for critical facilities
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 15: Safe Rooms	Details
Project Description	The need for additional safe rooms throughout the county should be considered, including safe rooms and sheltering in residences, businesses, critical facilities, health care facilities, and schools. As needs are identified, grant funding should be pursued for the construction of safe rooms.
Hazard(s) Addressed:	Tornado
Jurisdiction:	All
Type/Category:	Property Protection; Emergency Services
Estimated Cost:	Staff time plus grant cost share
Estimated Benefits:	McHenry County is vulnerable to tornado events. With the construction of safe rooms, life and safety can be protected
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	36 Months
Responsible Parties:	<u>County Departments:</u> EMA, Planning and Development <u>Municipalities' Departments:</u> Emergency Management, Designated Departments <u>Townships:</u> Main Office <u>Other:</u> Institutions, not listed
Priority:	Medium
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 16: Community Rating System Participation	Details
Project Description	McHenry County and the municipalities that participate in the NFIP should consider participating in the Community Rating System (CRS). The Village of Lake in the Hills already participates in CRS, and they should also continue their participation.
Hazard(s) Addressed:	Flooding
Jurisdiction:	
Type/Category:	Prevention; Property Protection
Estimated Cost:	Staff time
Estimated Benefits:	The CRS program saves property owners money on flood insurance premiums and it has been shown to be effective for the implementation of stormwater and floodplain management. McHenry County and the municipalities enforce higher regulatory standards than FEMA and participate in many creditable CRS activities.
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	Ongoing
Responsible Parties:	<u>County Departments:</u> EMA, Planning and Development <u>Municipalities' Departments:</u> NFIP Administrators
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 17: Urban Forestry - Participation in Tree City USA		Details
Project Description	McHenry County municipalities that are Tree City USA communities will maintain their status in the nationwide program, and communities that are not in the program will consider joining the program. It is understood that each municipality will make these considerations based on available staffing and financial resources	
Hazard(s) Addressed:	Severe Summer Storms, Severe Winter Storms, Tornadoes	
Jurisdiction:		
Type/Category:	Property Protection, Natural Resource Protection	
Estimated Cost:	\$2 per capita, staff time.	
Estimated Benefits:	Urban forestry programs provide mitigation against severe winter and summer storms, and high wind events. The loss of trees is prevented along with the protection of power, telephone and cable services. Damage to vehicles and buildings from falling limbs is also prevented.	
CBR (assumed to be cost effective?)	Yes	
Potential Funding Sources:	N/A	
Time Frame:	24 months	
Responsible Parties:	<u>County Departments:</u> Planning and Development, Public Works <u>Municipalities' Departments:</u> Public Works	
Priority:	High	
2015 Status:	<u>Status/Notes:</u> 	

McHenry County 2010 Mitigation Actions (for review/update)

Action 18: Participation in StormReady	Details
Project Description	McHenry County, communities and other agencies should consider joining the National Weather Service's StormReady program. The StormReady program has been developed to provide communities guidelines to improve the timeliness and effectiveness of hazardous weather-related warnings for the public.
Hazard(s) Addressed:	Flooding, Severe Summer Storms, Severe Winter Storms, Tornadoes
Jurisdiction:	
Type/Category:	Property Protection; Natural Resource Protection
Estimated Cost:	\$2 per capita, staff time.
Estimated Benefits:	By meeting StormReady requirements, the County, communities and institutions will be better able to detect impending weather hazards and disseminate warnings as quickly as possible. All efforts to prevent injury, save lives, and protect property are of high value.
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	24 months
Responsible Parties:	County Departments: EMA
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 19: Strengthen Building Codes and Code Enforcement Training	Details
Project Description	<p>Communities that have not adopted the International Code series of building codes should do so, and for all communities, future code revisions should be pursued to strengthen new buildings against damage by high winds, tornadoes, hail, and earthquakes. Requiring tornado "safe rooms" in certain structures should be considered. Any code revisions should be consistent with the efforts undertaken by multi-community organizations of building department staff.</p> <p>Training should be developed and conducted for building department staff on building code administration, enforcement, and the natural hazards aspects of the International Codes, regulation of mobile home installation, floodplain ordinances, and provisions applicable to hazard mitigation.</p>
Hazard(s) Addressed:	All
Jurisdiction:	
Type/Category:	Prevention
Estimated Cost:	Staff Time
Estimated Benefits:	Building codes cannot be effective unless they are administered and enforced properly. Training will ensure that county and municipal staffs understand the codes and procedures. This is a benefit that property owners will also benefit from as they understand the importance of the building standards for new construction. It also allows them to protect their investment in the property. Implementation of this Action Item will improve the hazard protection standards for new construction and will ensure a consistent set of building standards across the County.
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	24 months
Responsible Parties:	<u>County Departments:</u> Planning and Development/Building <u>Municipalities' Departments:</u> Building Departments
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 20: Seek Mitigation Grant Funding for Additional Mitigation Planning and Cost Beneficial Projects	
	Details
Project Description	The County, municipalities, townships, other agencies and institutions should apply for mitigation grant funding through available IEMA and FEMA programs for mitigation planning and mitigation projects. As required by IEMA and FEMA programs, projects must be cost beneficial. FEMA hazard mitigation funding including PDM, HMGP, FMA and Section 406 of the Stafford Act (for facilities and infrastructure damaged due to a presidentially declared disaster) should be considered.
Hazard(s) Addressed:	All
Jurisdiction:	
Type/Category:	Prevention, Property Protection, Structural Projects, Emergency Services
Estimated Cost:	25 percent of plan or project cost (non-federal share).
Estimated Benefits:	By meeting StormReady requirements, the County, communities and institutions will be better able to detect impending weather hazards and disseminate warnings as quickly as possible. All efforts to prevent injury, save lives, and protect property are of high value.
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	As needed
Responsible Parties:	<u>County Departments:</u> Administrator, EMA, Planning and Development, GIS <u>Municipalities' Departments:</u> Board, Emergency Management, Designated Departments <u>Townships:</u> Main Office, Road District, Fire District
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 21: Implementation of the Water Resources Protection Action Plan	
Details	
Project Description	The County, municipalities and townships should implement the water quality and groundwater protection measures recommended by the "McHenry County Water Resources Protection Action Plan."
Hazard(s) Addressed:	Flooding, Dam Failure, Drought
Jurisdiction:	
Type/Category:	Prevention; Natural Resource Protection
Estimated Cost:	Staff Time
Estimated Benefits:	McHenry County will benefit in the years to come by the protection of surface water and groundwater quality, and groundwater quantity for drinking water supply purposes.
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	Ongoing
Responsible Parties:	<u>County Departments:</u> Board, Planning and Development, Stormwater <u>Municipalities' Departments:</u> Board, Designated Departments
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 22: Development of a Public Information Strategy	Details
Project Description	<p>A countywide natural hazards public information strategy should be developed for the use of the County, municipalities, townships and institutions. The strategy should be consistent with the recommended approach for the CRS program. The most important topics to cover are: safety and emergency protection measures; property protection; understanding floods; water conservation; and water quality protection.</p> <p>Publications (such as community newsletters, newspaper articles, internet resources, and handouts) developed by other agencies should be reviewed, consolidated, and tailored for distribution to McHenry County property owners.</p> <p>A set of countywide publications should be developed that can be used by communities as is, but developed in a format that allows communities to customize the materials.</p>
Hazard(s) Addressed:	All
Jurisdiction:	All
Type/Category:	Public Education/Awareness; Prevention; Property Protection; Natural Resource Protection; Emergency Services
Estimated Cost:	Staff Time
Estimated Benefits:	<p>There are many benefits to having a well-informed public. For example, deaths from lightning have steadily decreased over the years because people are more aware of what they should and should not do. More self-help and self-protection measures will be implemented if people know about them and are motivated to pursue them.</p> <p>By preparing a public information strategy and a master set of locally pertinent articles and materials, each interested office only has to select the most appropriate media and distribute the messages. By simply inserting an article in a newsletter or putting it on the website, the local level of effort is greatly reduced, which increases the likelihood that the messages will get out. The messages will also be technically correct and consistent throughout the County.</p>
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	12 months
Responsible Parties:	<p>McHenry County Hazard Mitigation Committee</p> <p><u>County Departments:</u> Planning and Development</p> <p><u>Municipalities' Departments:</u> Emergency Management</p> <p><u>Townships:</u> Main Office</p>
Priority:	High
2015 Status:	<u>Status/Notes:</u>

McHenry County 2010 Mitigation Actions (for review/update)

Action 23: Property Protection References	Details
Project Description	<p>Provide municipal departments, libraries and other interested offices with a list of references on property protection that can be ordered for free from state and federal offices. Include a request that they make the references available for public use. A special effort should be made to identify references on insurance, emergency preparedness and property protection.</p> <p>Also, identify web sites that provide property protection information and provide their addresses to the County and municipal webmasters</p>
Hazard(s) Addressed:	All
Jurisdiction:	
Type/Category:	Prevention; Property Protection; Natural Resource Protection; Emergency Services; Public Education/Awareness
Estimated Cost:	Staff Time
Estimated Benefits:	As with the other public information activities, this action item helps inform the public. It provides the greatest assistance to those people who want to learn more about property protection and take the right steps to reduce their exposure to damage by natural hazards.
CBR (assumed to be cost effective?)	Yes
Potential Funding Sources:	N/A
Time Frame:	12 months
Responsible Parties:	<p>McHenry County Hazard Mitigation Committee</p> <p><u>County Departments:</u> Planning and Development</p> <p><u>Municipalities' Departments:</u> Emergency Management</p> <p><u>Townships:</u> Main Office</p> <p><u>Other:</u> Assistance from the American Red Cross</p>
Priority:	High
2015 Status:	<u>Status/Notes:</u>

MITIGATION ACTION WORKSHEETS FOR NEW ACTIONS

Mitigation Action Worksheets are used to identify potential hazard mitigation actions that participating jurisdictions in McHenry County will consider to reduce the negative effects of identified hazards. Please review with your departments. These actions serve as the base for pre- and post-disaster funding.

Please return all completed worksheets no later than Friday, March 11, 2016 to:

Caroline Cunningham, AICP

Electronic copies may be e-mailed to: Caroline.Cunningham@stantec.com

INSTRUCTIONS

Each mitigation action should be considered to be a separate local project, policy or program and each individual action should be entered into a separate worksheet.

Proposed Action: Identify a specific action that will reduce hazard impacts to current or future buildings and populations. Actions may be structural projects (such as elevation) or non-structural (such as policies, regulations and programs). Action should be consistent with the risk assessment, mitigation planning goals and community objectives. Include background information such as location and history of damages.

Site and Location: Provide details with regard to the physical location or geographic extent of the proposed action, such as the location of a specific structure to be mitigated, or whether a program will be citywide, countywide or regional, etc.

History of Damages: Provide a brief history of any known damages as it relates to the proposed action and the hazard(s) being addressed. For example, the proposed elevation of a property could include an overview of the number of times the structure has flooded and total dollar amount of damages.

Hazard(s) Addressed: List the hazard(s) for which the proposed action is designed to mitigate against.

Type/Category: Indicate the most appropriate category(s) for the proposed action as discussed during the planning committee meetings (Prevention; Property Protection; Natural Resource Protection; Structural Projects; Emergency Services; Public Education and Awareness).

Cost estimate:

- Costs are estimated based on knowledge, experience, and professional judgment:
 - Low Cost Projects: from \$0 to \$10,000
 - Medium Cost Projects: from \$10,001 to \$25,000
 - High Cost Projects: \$25,001 and over

Benefits estimate:

- Consider, for example:
 - Any losses avoided (reduction in damages; number of structures or population protected)
 - Life safety
 - Environmental benefits
 - Quality of life improvements
 - Economic gains

Timeframe: Indicate the expected completion date

Priority: Indicate whether the action is a "high" priority, "medium" priority or "low" priority based estimated cost-benefit review, life safety, funding availability, political support, environmental considerations, and social considerations.

Potential Funding Sources: If applicable, indicate how the cost to complete the action will be funded. For example, funds may be provided from existing operating budgets or general funds, a previously established contingency fund, a cost-sharing federal or state grant program, etc.

Lead Agency/Department Responsible: Identify the local agency, department or organization that is best suited to implement the proposed action.

Additional Comments: This space is provided for any additional information or details.

Proposed Action Criteria	Details
Proposed Action (background information such as problem, location, and history and of damages)	
Hazard(s) Addressed:	
Type/Category:	(select all that apply) Prevention; Property Protection; Natural Resource Protection; Structural Projects; Emergency Services; or Public Education and Awareness
Priority (High, Moderate, Low):	
Estimated Cost:	
Estimated Benefits:	
Potential Funding Sources:	
Lead Agency/Responsible Department	
Additional Comments	

Proposed Action Criteria	Details
Proposed Action (background information such as problem, location, and history and of damages)	
Hazard(s) Addressed:	
Type/Category:	(select all that apply) Prevention; Property Protection; Natural Resource Protection; Structural Projects; Emergency Services; or Public Education and Awareness
Priority (High, Moderate, Low):	
Estimated Cost:	
Estimated Benefits:	
Potential Funding Sources:	
Lead Agency/ Responsible Department	
Additional Comments	

Proposed Action Criteria	Details
Proposed Action (background information such as problem, location, and history and of damages)	
Hazard(s) Addressed:	
Type/Category:	(select all that apply) Prevention; Property Protection; Natural Resource Protection; Structural Projects; Emergency Services; or Public Education and Awareness
Priority (High, Moderate, Low):	
Estimated Cost:	
Estimated Benefits:	
Potential Funding Sources:	
Lead Agency/ Responsible Department	
Additional Comments	