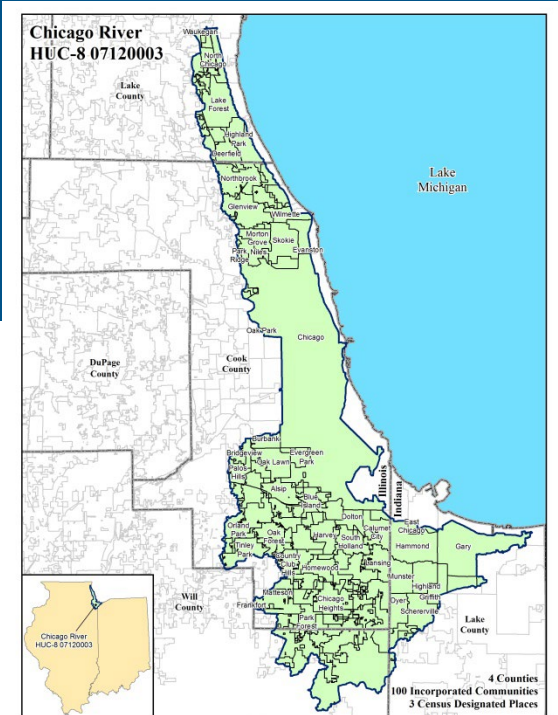




FEMA

Chicago River Watershed FEMA Risk MAP Follow-Up Discovery Meetings May 14 & 15, 2014



Sally McConkey, P.E., CFM
Brad McVay, CFM
Pat Hubbardt, CFM

Lisa Graff, CFM
Mary Richardson, CFM



**ILLINOIS STATE
 WATER SURVEY**
 PRAIRIE RESEARCH INSTITUTE



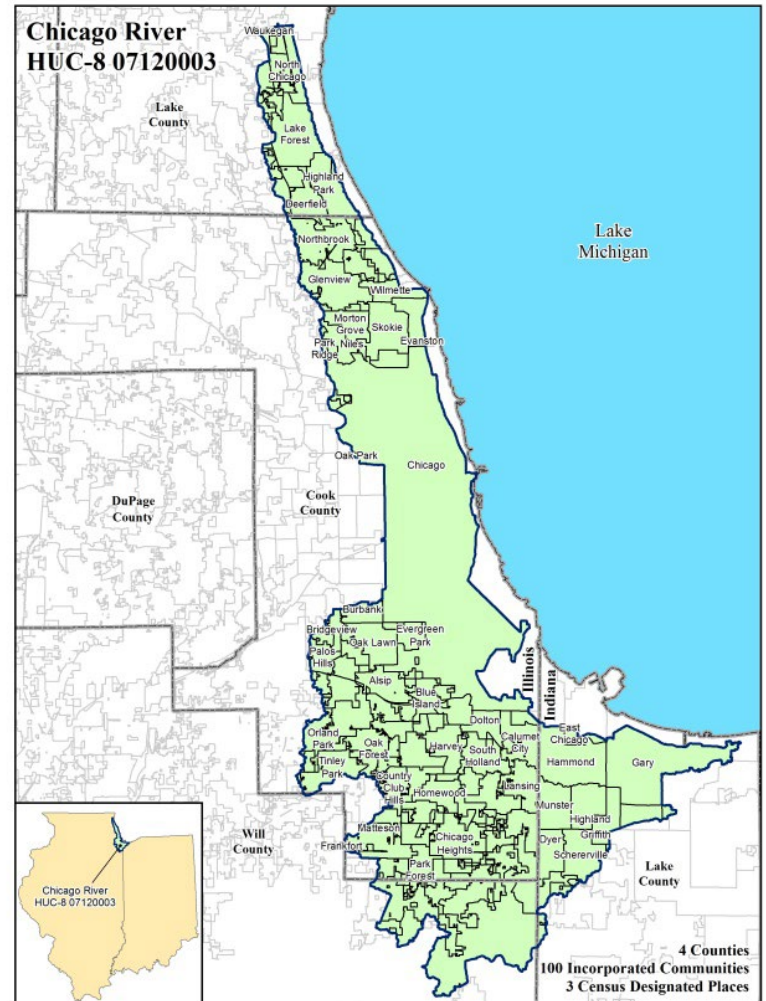
ILLINOIS
 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

RiskMAP
 Increasing Resilience Together



Chicago WS Discovery Meetings Summary

- **Chicago WS Discovery Meetings**
 - Northbrook - November 13, 2013
 - Oak Lawn - November 14, 2013
 - Channahon - April 25, 2013
- **Chicago Watershed Counties and Communities**
 - Cook, Lake, and Will Counties, Illinois and Lake County, Indiana
 - 117 Officials representing 52 Communities
 - 87 comments submitted by 36 communities.
 - Submit additional comments by Friday, May 30, 2014
- **Ten HUC 8 watershed Discovery projects**
- **Twenty- three Discovery meetings**



Communities & Entities Participating

Bannockburn, Village of
Bedford Park, Village of
Beecher, Village of
Bridgeview, Village of
Calumet City, City of
Calumet Park, Village of
Chicago , City of
Chicago Ridge, Village of
Cook County
Crete, Village of
Crestwood, Village of
Deerfield, Village of
Evanston, City of

Evergreen Park, Village of
Frankfort, Village of
Glencoe, Village of
Glenview, Village of
Glenwood, Village of
Golf, Village of
Green Oaks, Village of
Highland Park, City of
Kenilworth, Village of
Lake Bluff, Village of
Lake County, IL
Lincolnshire, Village of
Lincolnwood, Village of

Lynwood, Village of
Midlothian, Village of
Morton Grove, Village of
Munster, IN, Town of
Niles, Village of
North Chicago, City of
Northbrook, Village of
Oak Lawn, Village of
Olympia Fields, Village of
Orland Park, Village of
Palos Heights, City of
Palos Hills, City of
Palos Park, Village of

Park Forest, Village of
Richton Park, Village of
Riverdale, Village of
Riverwoods, Village of
Sauk Village, Village of
Schereville, IN, Town of
Skokie, Village of
South Holland, Village of
Steger, Village of
Tinley Park, Village of
Will County
Wilmette, Village of
Winnetka, Village of

Christopher B. Burke Ltd.
Cook County Dept. of Homeland Security Emergency Management
Cook County Forest Preserve District
Illinois Senatorial District 5
Illinois Congressional District 17
Illinois Congressional District 57
Illinois Congressional District 58

Lake County Stormwater Management Commission
Metropolitan Water Reclamation District of Greater Chicago
Northfield Township
Tetra Tech
Union Drainage District 1
United States Senate
USACE Chicago District
Worth Township

Meeting Agenda

Chicago River HUC 8 Watershed FEMA Risk MAP Discovery Meetings Agenda November 13 & 14, 2013

- **Welcome and Introductions**
 - Pat Hubbard, CFM, ISWS
- **Risk MAP Goals & Objectives**
 - ISWS/FEMA Region V
- **Natural Hazards Mitigation Plan Update**
 - Sandy Anagnostopoulos, Emergency Planner, Tetra Tech (Northbrook meeting)
 - Ed Schuessler, Emergency Planner, TetraTech (Oak Lawn meeting)
 - Matt Riggs, GIS Analyst, The Polis Center, IUPUI (Oak Lawn meeting)
- **North Branch – Lake County Flood Mitigation Efforts**
 - Andrea Cline, SMC (Northbrook meeting)
- **CRS and Floodplain Management**
 - Brian Eber, CFM, NE Illinois Floodplain Program Coordinator, IDNR/OWR
- **MWRD Chicago River Watershed Projects**
 - Greg Koch, Principal Civil Engineer, MWRD (Northbrook meeting)
 - John Murray, Civil Engineer, MWRD (Oak Lawn Meeting)
- **USACE--Chicago District Chicago River Projects**
 - USACE, Chicago District
- **Meeting Goals, Tools, and Comment Process Instructions**
 - Sally McConkey, P.E., CFM, ISWS
- **Group Breakout Sessions - Discovery Map Review**
 - Meeting Attendees



Illinois State Water Survey Website - www.illinoisfloodmaps.org

Do you know of.....???????

- Areas of frequent flooding, especially road closures? Overtopped roads?
- Locations of new bridges, culverts, channel realignment
- Streams where erosion is problematic
- Locations of observed ice jams.
- Flood mitigation projects been completed or planned
- Areas of development or new development in planning that could impact the watershed
- Technical data or studies that your community needs to help with mitigation projects
- Inaccurate floodplain boundaries
- Streams reaches where the effective study does not show existing conditions

Comment Form

Chicago River HUC 8 Watershed
Comment Form # 45

Please, provide the following information:		Date:
Name:	Title:	
Community/County:		
Email:	Phone:	

Explain your comment below and attach any supporting documents/materials. Mark the location of your comment on the map by circling the area and writing the comment form number near the circle. If you have more than one comment, please use multiple forms.

Check Comment Subject:		
<input type="checkbox"/> Levee	<input type="checkbox"/> Dam	<input type="checkbox"/> Development (past, current, or future within 5 yrs)
<input type="checkbox"/> Basement Flooding	<input type="checkbox"/> Significant Riverine Erosion	
<input type="checkbox"/> Stream Flow Constriction (including ice jams)	<input type="checkbox"/> Non-Levee Embankments	
<input type="checkbox"/> Street Closure Due to Flooding	<input type="checkbox"/> Areas of Mitigation Success	
<input type="checkbox"/> At-Risk Essential Facilities	<input type="checkbox"/> Other Flood Risk Area	

Comment Marked on:		
Discovery Map # _____	DFIRM Panel # _____	Other _____

Mitigation Action - To enter the mitigation action please complete the back of this form.

Continued on back side if necessary. Please return form to: Pat [pubbert](mailto:pubbert@illinois.gov), Illinois State Water Survey, 2204 ChRIS Driv, MC-674 Champaign, IL 61820 or pubbert@illinois.gov

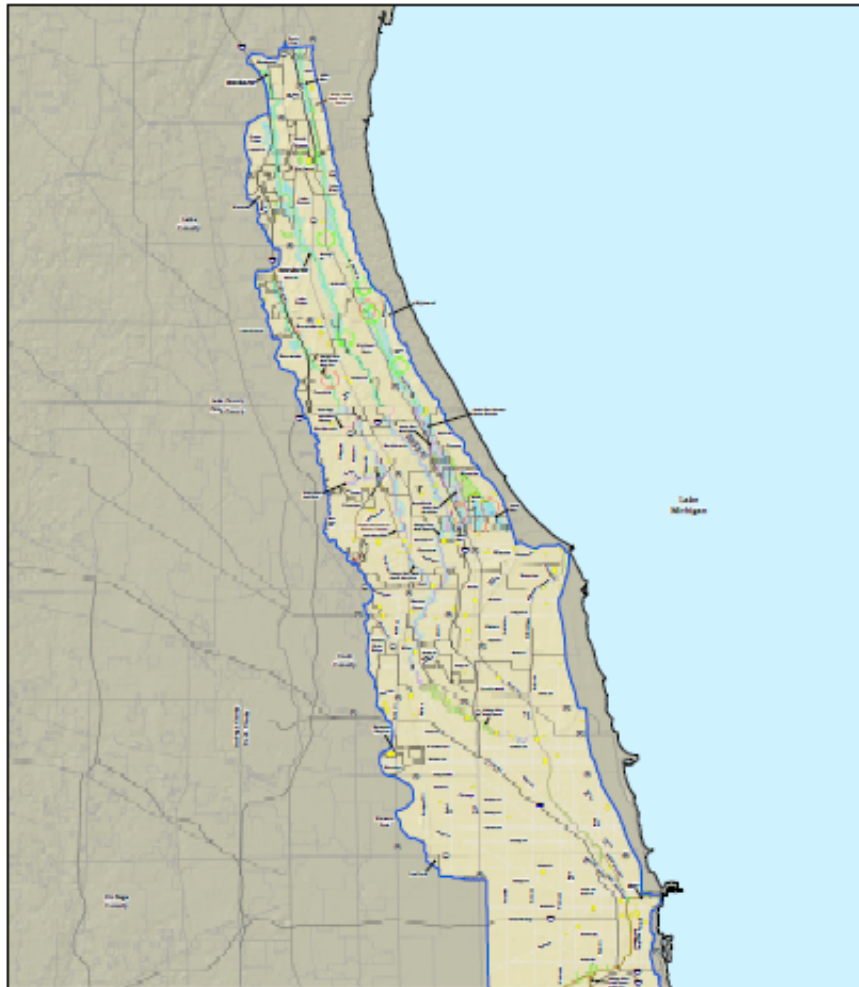
Chicago River HUC 8 Watershed
Comment Form # 45

1. Mitigation Activity Name - _____
2. Mitigation Action Status (Circle one) Identified Scoped In Progress Completed
3. Mitigation Activity Location - _____
4. Please indicate if this action arose or was identified during the Risk MAP process.
 - a. A Risk MAP product helped ID the action
 - b. Action was identified during a Risk MAP meeting.
 - c. Action was identified during a Risk MAP communication.
 - d. A Risk MAP resource helped drive the action.
5. Mitigation Action Source (Circle one or more)
 - a. Capital Improvement Plan
 - b. Comprehensive Land use Plan
 - c. HMA Database
 - d. Local Natural Hazard Mitigation Plan
 - e. Risk MAP Process
 - f. State Risk Management Team (Silver Jackets)
 - g. Other
6. Mitigation Plan Name
(Please enter the name of the Mitigation Plan that covers this mitigation activity.)

7. Contact Name /Title - _____
8. Responsible Agency - _____
9. Estimated Duration / Cost - _____
10. Primary Funding Source - _____
11. Additional Information - _____

Continued on back side if necessary. Please return form to: Pat [pubbert](mailto:pubbert@illinois.gov), Illinois State Water Survey, 2204 ChRIS Driv, MC-674 Champaign, IL 61820 or pubbert@illinois.gov

Chicago Watershed Discovery Maps



Discovery Map - North
Chicago River
HUC-8 07120003

ILLINOIS STATE WATER SURVEY
The Public Center
ILLINOIS
FEMA

Areas of Mitigation Interest

- All State Assessment Facilities
- Dams
- FEMA Public Assistance Data
- Key Emergency Response Overlap
- Other Flood Risk Areas
- Peak Climate Risk Spot
- Stream Flow Conductions
- Other

CSMA Stream Vulnerability Status

- Unassess
- Assess
- Safe

Special Flood Hazard Areas

- Approximate (Zone A)
- Special (Zone A)
- Floodway (Zone A)
- Shallow Flooding (Zone A)

Stream Gauge

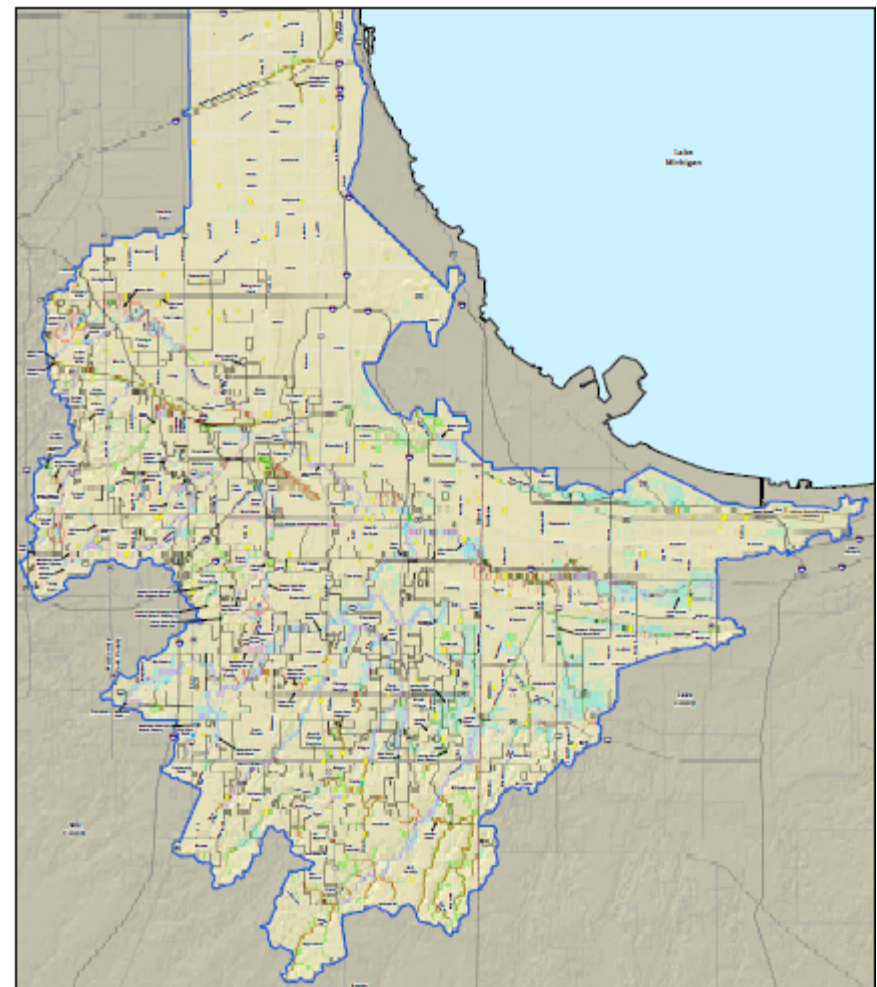
- Location of Map Change (CSMA)
- USGS Station
- Community Boundary
- County Boundary
- Parish/County
- Waterward Boundary
- Waterline

Roads

- Interstate
- U.S. Hwy
- State Hwy
- Other Roads

Scale

North Arrow



Discovery Map - South
Chicago River
HUC-8 07120003

ILLINOIS STATE WATER SURVEY
The Public Center
ILLINOIS
FEMA

Areas of Mitigation Interest

- All State Assessment Facilities
- Dams
- FEMA Public Assistance Data
- Key Emergency Response Overlap
- Other Flood Risk Areas
- Peak Climate Risk Spot
- Stream Flow Conductions
- Other

CSMA Stream Vulnerability Status

- Unassess
- Assess
- Safe

Special Flood Hazard Areas

- Approximate (Zone A)
- Special (Zone A)
- Floodway (Zone A)
- Shallow Flooding (Zone A)

Stream Gauge

- Location of Map Change (CSMA)
- USGS Station
- Community Boundary
- County Boundary
- Parish/County
- Waterward Boundary
- Waterline

Roads

- Interstate
- U.S. Hwy
- State Hwy
- Other Roads

Scale

North Arrow

Group Breakout Sessions



Marked Discovery Map and Comment Form

Chicago River HUC 8 Watershed Comment Form # 45

Please provide the following information:		Date: 11/15/13
Name: PATRICK GLENN	Title: IMAGE ENGINEER	
Community/County: RIVERWOODS, LAKE		
E-mail: pglenn@gha-engineers.com	Phone: 847.478.9700	

Explain your comment below and attach any supporting documents/materials. Mark the location of your comment on the map by circling the area and writing the comment form number near the circle. If you have more than one comment, please use multiple forms.

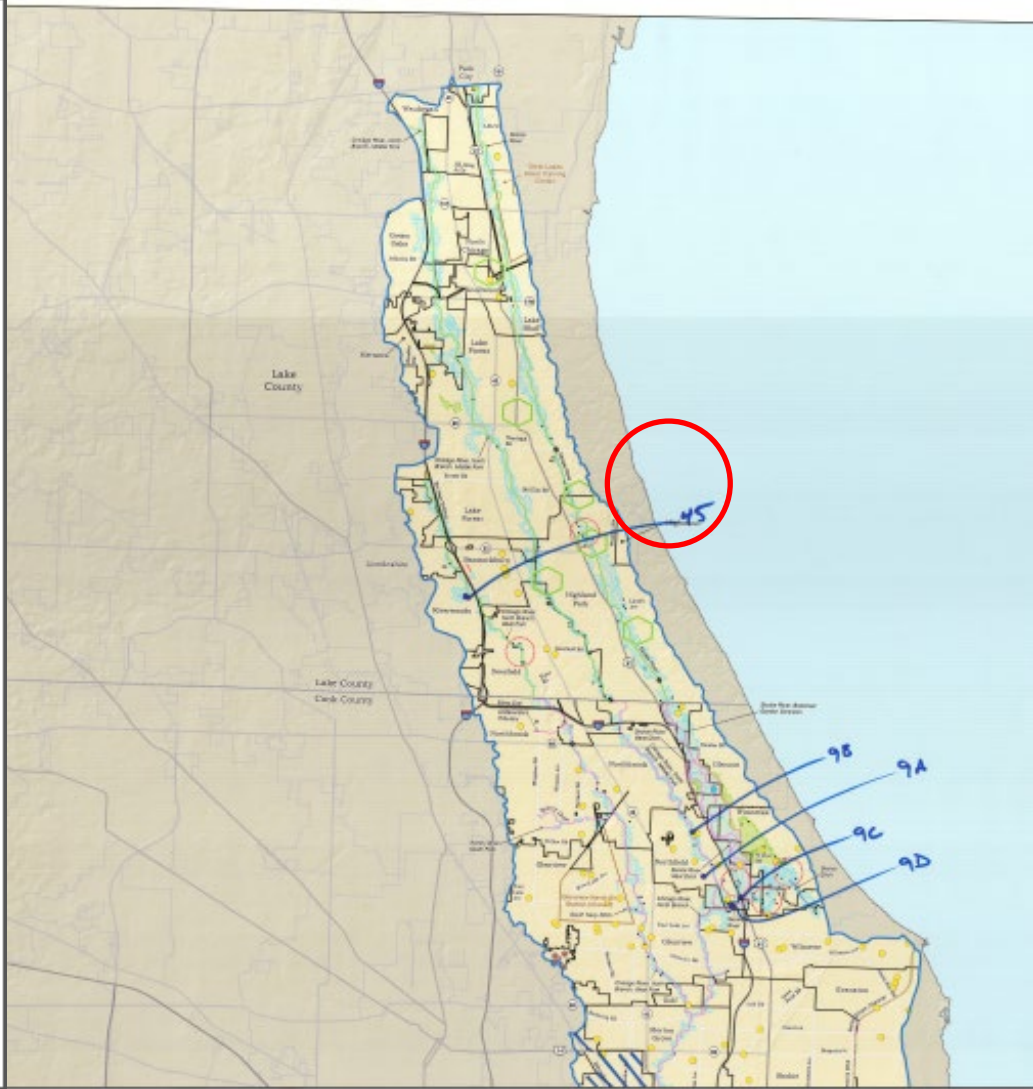
Check Comment Subject:		
<input type="checkbox"/> Levee	<input type="checkbox"/> Dam	<input type="checkbox"/> Development (past, current, or future within 5 yrs.)
<input type="checkbox"/> Basement Flooding	<input type="checkbox"/> Significant Riverine Erosion	
<input type="checkbox"/> Stream Flow Constriction (including ice jams)	<input type="checkbox"/> Non-Levee Embankments	
<input checked="" type="checkbox"/> Street Closure Due to Flooding	<input type="checkbox"/> Areas of Mitigation Success	
<input type="checkbox"/> At-Risk Essential Facilities	<input type="checkbox"/> Other Flood Risk Area	

Comment Marked on:
Discovery Map # 2 DFIRM Panel # _____ Other _____

ROADWAY FLOODING, WEST COURSE DRIVE

Mitigation Action - To enter the mitigation action please complete the back of this form.

Continue on back side if necessary. Please return form to: Pat Hubbard, Illinois State Water Survey, 2204 Griffith Drive, MC-674 Champaign, IL 61820 or e-mailed to hubbart@illinois.edu.



WHY???.GOALS???

Risk MAP *Discovery*

- To work closely with communities to gain a better understanding of local flood risk and mitigation efforts and initiate watershed-wide discussions.
- To gather up-to-date community data.
- To build community resilience.



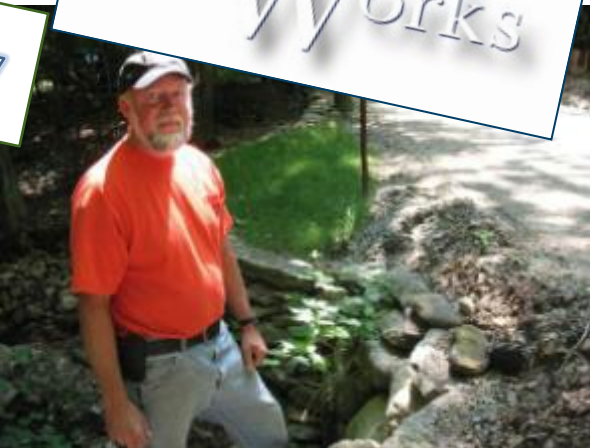
Building Community Resilience

- To increase a community's ability to **reduce flood risk** through **mitigation efforts** resulting in less loss of life and property so the community can recover quicker.

Reduce loss
of life and
property

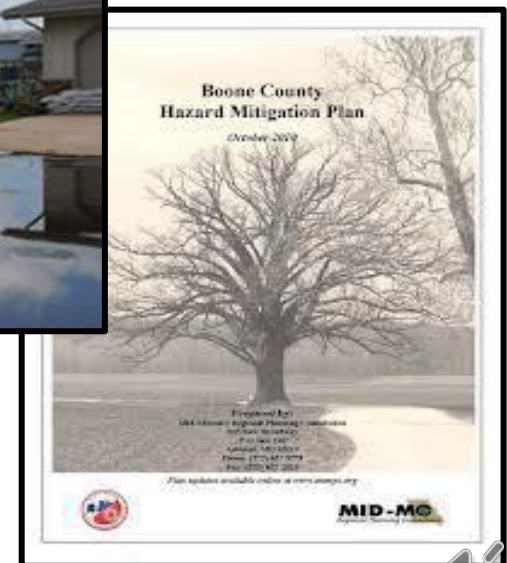
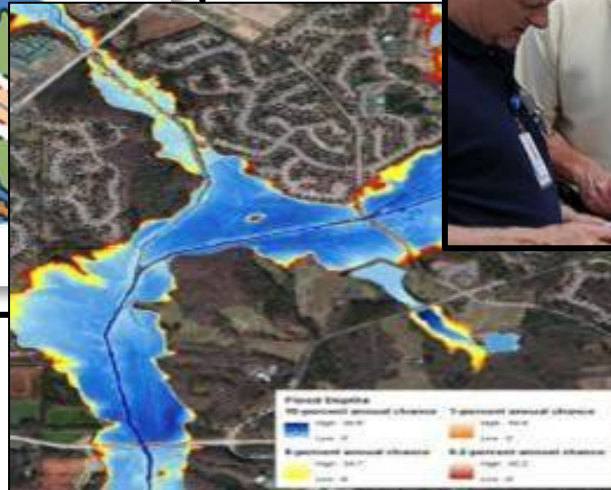
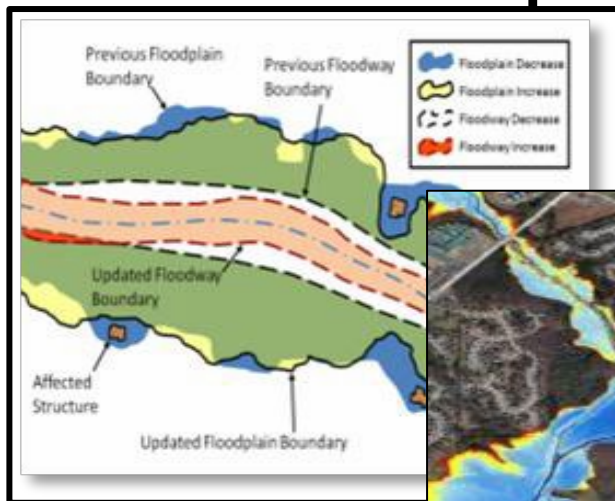
Sustainability

Mitigation
Works



Risk MAP Vision and *Mitigation*

Through collaboration with State, Local, and Tribal entities, Risk MAP (Mapping, Assessment and Planning) will deliver quality data that increases public awareness and leads to *action that reduces risk* to life and property.



FEMA's Toolbox

Publications

Community Rating System Fact Sheet

Watershed Flood Insurance Reform Act of 2004

Lake County All Natural Hazards Mitigation Plan

Can we afford to reduce risk? Can we afford not to?



Hazard Mitigation Plans

Education

BE A HERO! Youth Emergency Preparedness

www.ready.gov/kids

Mitigation Action Tracker



Discovery Products

ILLINOIS FLOODMAPS ONLINE

Upper Sangamon River Watershed Discovery

Changes Since Last FIRM



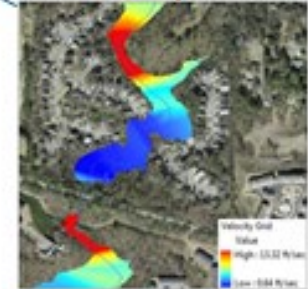
Depth Grids



Percent 30-Year Grids



Velocity Grids

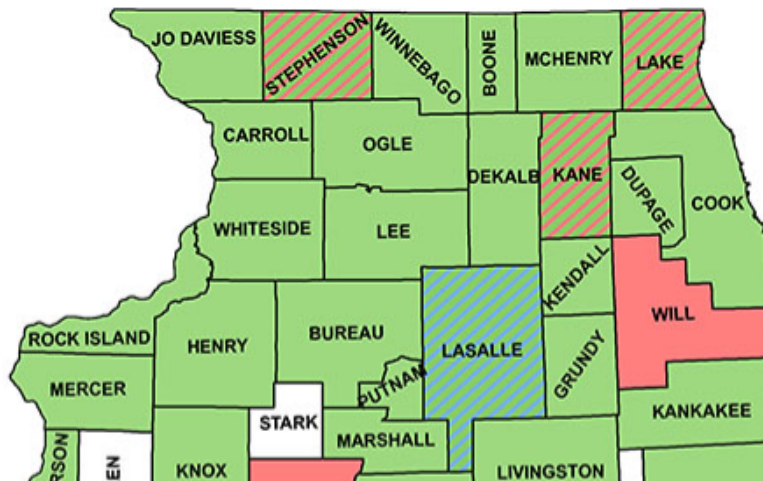


Outreach

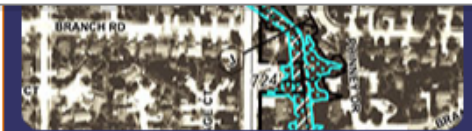


FEMA Flood Insurance Rate Maps, Studies, and Database Products

The [Illinois State Water Survey](#) is providing preliminary and final Flood Insurance Rate Maps on this web site. Maps revised between preliminary and final phases are not posted. Effective Flood Insurance Rate Maps are posted at the Federal Emergency Management Agency [Map Service Center](#) web site. The FEMA web site for each effective digital FIRM may be accessed by selecting the county and individual map.



- Cache River Watershed Discovery
- Chicago River Watershed Discovery
- Des Plaines Watershed Discovery
- Lower Fox Watershed Discovery
- Lower Rock Watershed
- Lower Rock Watershed in Winnebago County Discovery
- Lower and Middle Wabash Watershed Discovery
- Saline River Watershed Discovery
- Upper Fox Watershed Discovery
- Upper Sangamon Watershed Discovery
- Peoria County Outreach Meeting



A sample DFIRM showing areas of greater flood risk in blue

The DFIRM is designed to provide the user with the ability to determine the flood zone, base flood elevation within one foot and the floodway status for a particular location. It also has National Flood Insurance Program (NFIP)

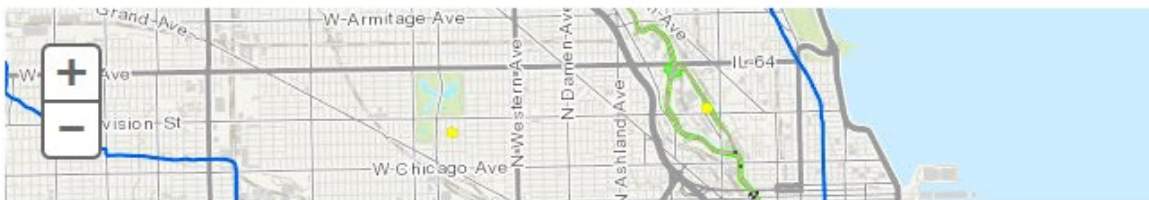
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- [Draft Discovery Map for Chicago River Watershed, South \(PDF\)](#)
- [Chicago River Watershed Draft Discovery \(zipped downloadable database\)](#)
- [Draft Discovery Map Data Layers \(PDF\)](#)
- [Chicago River Watershed Comment Form \(fillable PDF\)](#)
- [Links to Discovery-related websites](#)



About the Chicago River

The Chicago River watershed area includes portions of Lake, Cook and Will Counties, Illinois and Lake County, Indiana. One hundred incorporated communities and three census designated places are included within the watershed.



The Chicago River winding through downtown

Click buttons below to zoom map

Chicago

Chicago Heights

FEMA's Toolbox

Publications

Community Rating System Fact Sheet

Wigwag Waters Flood Insurance Subarea Act of 2003

Lake County All Natural Hazards Mitigation Plan Lake County, Illinois June 2012



Hazard Mitigation Plans

Education

BE A HERO! Youth Emergency Preparedness Grades K-6

www.ready.gov/kids

Depth Grids



Mitigation Action Tracker



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ILLINOIS FLOODMAPS.ORG

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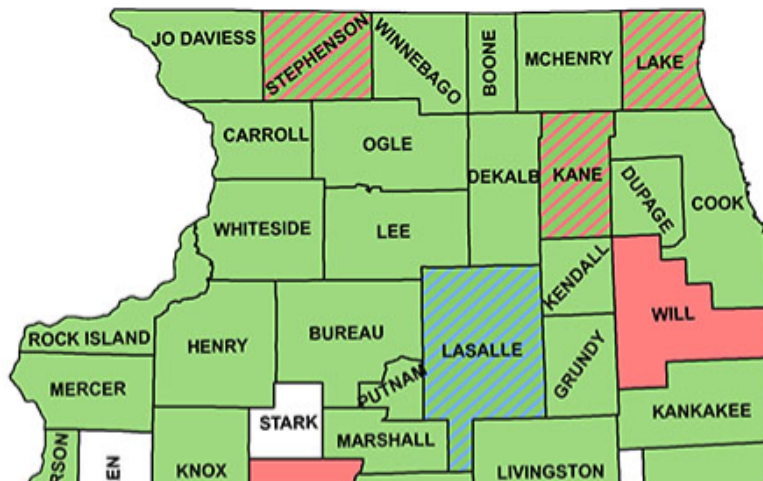


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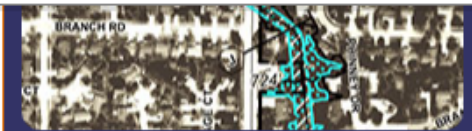


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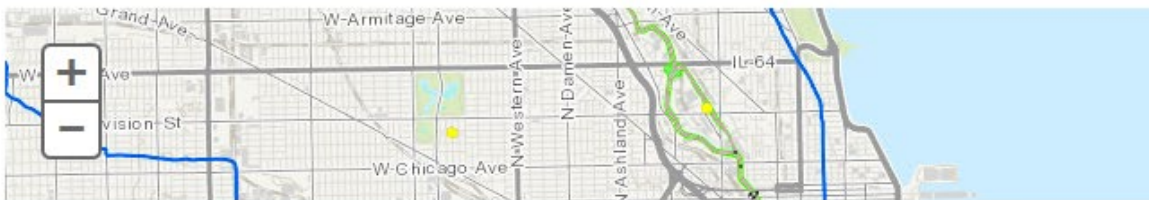
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The Chicago River winding through downtown

Click buttons below to zoom map

Chicago

Chicago Heights

Mitigation Action Tracker

Search for a Place

E.g. Boulder County

[« Hide Menu](#) [Hide Advanced Search Options](#)

States and Regions

Region V

County

Select a County

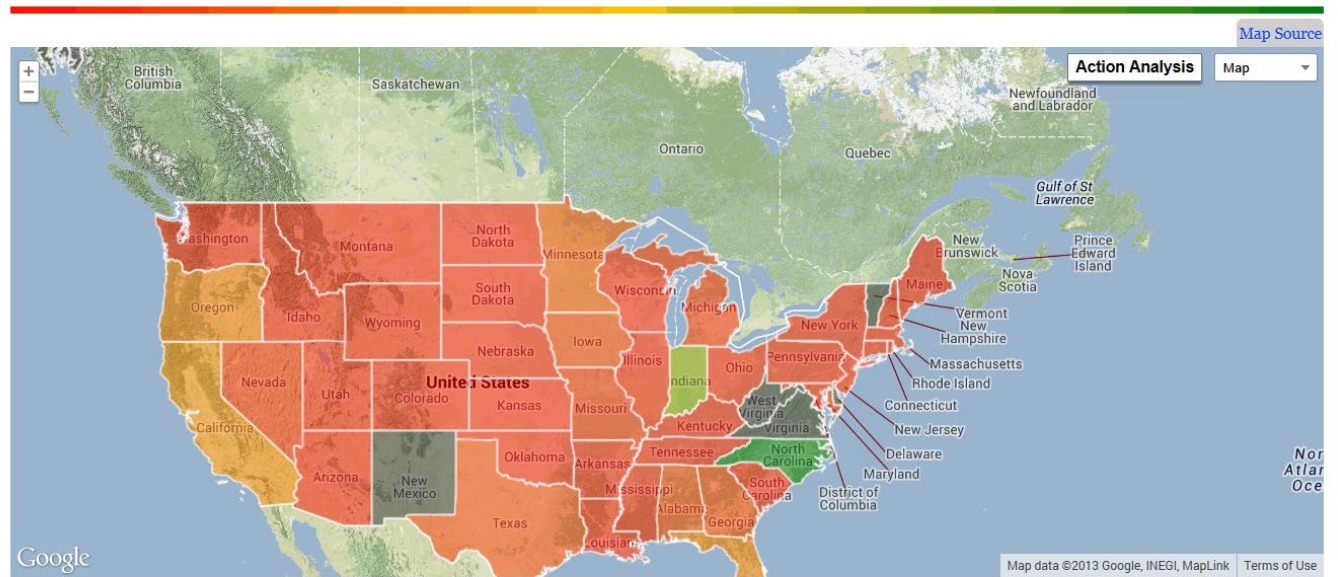
Watershed Sort by: Code Name

Select a Watershed

Community	Population (2010)	Approved Actions
Select a Location from the options above		

 [Mitigation Action Form](#)

Filter: National



Mitigation Action Data

[Show All](#) [Show My Entries](#) [Show Approved Entries](#)

Show entries

Showing 1 to 10 of 1,055 entries (filtered from

Search:

[First](#)
[Previous](#)
[1](#)
[2](#)
[3](#)
[4](#)
[5](#)
[Next](#)
[Last](#)

Mitigation Action Tracker (MAT)

- The **Mitigation Action Tracker (MAT)** is a Web-based tool used to capture, store, organize and track mitigation actions.
- Community officials are encouraged to utilize this tool as a resource for organizing and tracking potential mitigation actions in their community.
- Numerous mitigation actions have been entered as part of our follow up work after Risk MAP Discovery meetings.



Mitigation Action Tracker (MAT)



MAT IS PART OF FEMA'S TOOLBOX FOR RISKMAP & MITIGATION PLANNING

IS A FEMA WEB BASED TOOL
[HTTP://MAT.MSC.FEMA.GOV/](http://mat.msc.fema.gov/)

USED BY FEMA: TO TRACK ACTIONS **ATTRIBUTABLE**
TO **RISKMAP**; FEMA METRICS

USE BY: REGIONS, STATES AND LOCAL
OFFICIALS

USED TO: **CAPTURE** → **STORE** → **ORGANIZE** →
TRACK MITIGATION ACTIONS

MAT Fact Sheet:

http://www.starr-team.com/starr/RegionalWorkspaces/RegionV/StarkeCountyIN_Countywide/Resilience%20Materials/Resilience%20Fact%20Sheet_Mitigation%20Action%20Tracker.pdf



The Mitigation Action Tracker

When local officials understand risk from flooding and other hazards, the community and county is in a better position to identify potential mitigation actions that can reduce that risk to its citizens and property.

To support in the collection and tracking of local hazard mitigation actions, FEMA has developed a national web-based collection tool known as the Mitigation Action Tracker. The Mitigation Action Tracker serves as a valuable tool for your community and county serving as a single source to capture and organize mitigation actions at any stage from proposed actions to funded projects. Registered users have the ability to add new actions, remove old actions, or update the status of an action as it changes over time. Through collaboration between communities, counties, the State, and FEMA new actions can be identified and existing actions may be improved upon. In addition, funding and collaboration opportunities to implement mitigation actions may be identified.

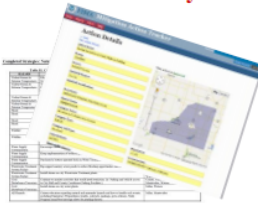
Mitigation Action Tracker and Your Community?

Think about your community or county ...

What does it currently need to do to reduce its flood risk?

How does your community or county track the actions it needs to take?

And how does your community or county monitor the progress of those actions?



What Can the Mitigation Action Tracker Capture?

Types of Mitigation Actions

- 1) Local Plans and Regulations
- 2) Community Identified Programs
- 3) Structure and Infrastructure Projects

For ideas regarding mitigation action your community or county could consider, please visit <http://www.fema.gov/hazard-mitigation-planning-resources>

Does your community or county need to update its floodplain ordinances, establish setbacks, or designate a floodplain administrator?

Does your community or county need to develop local funding mechanisms or provide incentives for reducing risk?

Does your community or county need to stabilize a stream bank, conduct debris remove, replace a culvert or raise a low-lying bridge?

PURPOSE

- Identify Areas of Mitigation Interest (AoMI) and actions
- Document & Organize mitigation activities
- Communicate progress on mitigation activities
- Identify point(s) of contact for each mitigation action



FEMA uses the Mitigation Action Form and Mitigation Action Tracker website to document and track local mitigation needs and actions.



For more information on the Mitigation Action Tracker or to register, please visit <http://fema.starr-team.com/About.aspx>

RiskMAP
Increasing Resilience Together

www.fema.gov/plan/prevent/fhm/rm_main.shtm · 1-877-FEMA MAP



Why use the Mitigation Action Tracker?

The Mitigation Action Tracker is a free web based tool with interactive map that enables multiple users to search, view, enter and update mitigation actions, ideas or projects. All the Mitigation Action Trackers requires is a computer, internet access and an email address to register and start recording your community's or county's mitigation ideas and projects. Registered users can update the status of their mitigation projects throughout the project lifecycle using the Mitigation Action Tracker. The Mitigation Action Form can be downloaded from <http://fema.starr-team.com/MAF-Form.pdf> Simply use the forms to collect the data at any meeting and enter it into the Mitigation Action Tracker afterwards.

Data captured will provide stakeholders and communities access to valuable mitigation information that can be leveraged by future planning or other risk reduction efforts. These actions help communities and counties prepare for potential disaster and develop a long-term strategy to reduce disaster losses.

Additionally, information your community or county provides may also be used a reference and aid in planning for other groups and agencies such as:

- FEMA's Hazard Mitigation Grants Staff
- State Hazard Mitigation Officers and Planners
- Army Corps of Engineers Silver Jacket teams

Mitigation Grant Opportunities

<http://www.fema.gov/hazard-mitigation-grant-program>

State Hazard Mitigation Officers Directory

<http://www.fema.gov/about/contract/shmo.shtm>

Actions identified on the Mitigation Action Form and in the Mitigation Action Tracker do not obligate or commit your community or county to an action

Using Mitigation Action Tracker

Community and County officials, such as the floodplain administrator, public works director, utility director, land use planning director and other community and county staff are encouraged to register for access to the Mitigation Action Tracker and record areas of mitigation concern and current and proposed mitigation projects.

- 1) Register/Create New Account at <http://fema.starr-team.com/About.aspx>

- 2) Add New Action

Select your community or county from the drop-down menu to the right of the map viewer. Check box your community and select the green **"Add Mitigation Action"** button. An interactive Mitigation Form will open. Simply record the mitigation action or project using a series of selections and drop downs.

- 3) Search for Existing Action

Below the map viewer under **"Mitigation Action Data"**, search for your community using the **"Search"** box on the right.

Did your community or county participate in a Resilience Meeting in IN, MN, or MI in 2012? If so, contact Jennifer Anticknap at jennifer.anticknap@starr-team.com with your name and community info and the existing mitigation actions will be transferred to you to oversee, edit, and update over its life cycle.

RiskMAP
Increasing Resilience Together

www.fema.gov/plan/prevent/fhm/rm_main.shtm · 1-877-FEMA MAP

The Mitigation Action Tracker



FEMA DESIGNED TO PROVIDE :

- **AN INVENTORY** OF MITIGATION ACTIONS;
- **A SOURCE** FOR MITIGATION IDEAS;
- **A RESOURCE** FOR TRACKING ACTIONS THAT CAN BE CREDITED TO RISKMAP;
- **A *SEARCHABLE DATABASE*** THAT CAN BE UPLOADED INTO GIS TO PUT A PICTURE TO THE MITIGATION ACTIONS.
- ***HELPING COMMUNITIES MITIGATE***

Home page of the Action Tracker: <http://mat.msc.fema.gov/> To create an account:

The screenshot displays the FEMA Mitigation Action Tracker interface. At the top, there is a navigation bar with the FEMA logo and the text "FEMA Mitigation Action Tracker". Below this, there are several tabs: "Home", "Charts", "Reports", "Admin", "Ideas", and "Help".

The main content area is titled "Log In" and features the FEMA logo and the text "FEMA Mitigation Action Tracker". In the top right corner, it says "Welcome mjr@illinois.edu!" and provides links for "Profile", "Change Password", and "Log Out".

On the left side, there is a search section titled "Search for a Place" with a text input field and a "Get communities in current view" button. Below this are dropdown menus for "States and Regions" (set to "National"), "County", and "Watershed". A table below these menus shows columns for "Community", "Population (2010)", and "Approved Actions".

The right side of the page features a map of the United States with various states labeled. A "Filter: National" is applied. In the top right corner of the map area, there are buttons for "Action Analysis" and "Map Source".

At the bottom left of the page, there is a button labeled "+ Add Mitigation Action".

Pull-down menu to navigate to State and Region and then to a County or a Watershed. Northbrook

FEMA Mitigation Action Tracker Welcome mjr@illinois.edu!
Profile Change Password Log Out

Home Charts Reports Admin Ideas Help Flags

Search for a Place Mitigation Action Form

E.g., Boulder County

[Hide Menu](#) [Hide Advanced Search Options](#)
Get communities in current view

States and Regions

County

Watershed sort by: Code Name

NORTHBROOK, VILLAGE OF 32,945 1
 NORTHFIELD, VILLAGE OF 5,247 2
 OAK FOREST, CITY OF 27,386 0
 OAK LAWN, VILLAGE OF 56,910 0
 OLYMPIA FIELDS, VILLAGE OF 4,768 1
 ORLAND PARK, VILLAGE OF 53,805 1

[+ Add Mitigation Action](#)

Mitigation Action Data Map Source

[Show All](#) [Show My Entries](#) [Show Approved Entries](#)
 Show entries Search: Northbrook

Showing 1 to 1 of 1 entries (filtered from 5,801 total entries) First Previous 1 Next Last

Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source	
More Info	95	Illinois	Northbrook, Village Of	Spillway Project	32,945	Flood	Structure and Infrastructure Projects (Flood Control, Management)	Identified	Other

Northbrook Detail sheet for: *Spillway Project*

Action Details

[<< Back](#)

Action Name:
Spillway Project

Status:
Identified

Influenced by the RiskMAP Process:
Yes

Source:
Other

Plan Name:

Hazard Name:
Flood

Category Name:
Structure and Infrastructure Projects

Category Type:
Flood Control/Management

Category SubType:
Dams/Leaves

Contact Title:
Village Engineer

Contact Name:
Paul Kerdzior

Responsible Agency:
Other

Estimated Cost (Min):
(\$9,999)

Estimated Cost (Max):
(\$9,999)

Estimated Duration (Min):
1 Years

Estimated Duration (Max):
2 Years

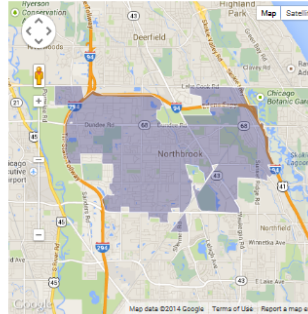
Primary Funding Source:
Other

Funding Source Type:

Additional Details:
Observations during past significant regional flooding events has indicated that the reservoir on the West Fork at Lake-Cook, Pflingsten Roads is slow to fill and does not ever reach capacity. Would like to see spillway capacity increased. Responsible agency, estimated cost, duration and primary funding source not determined at this time.

Precise Location:
N/A

This action is **Approved**



Population:
24,945

Communities:
NORTHBROOK, VILLAGE OF (170432), ILLINOIS

Name of Person who Identified Action:
Paul Kerdzior

Title of Person who Identified Action:
Village Engineer

Date when Action was Identified:
11/12/2013

Action Flags

Flags added here serve a notes on this particular action. Only one flag per user per action is permitted. To add a flag, click on the "Add Flag" button and fill out the username and note fields. If you add a flag for a user besides yourself, they will receive an e-mail notification alerting them of the flag.

[Add Flag](#)

Glenview:

FEMA Mitigation Action Tracker
Welcome mjr@illinois.edu!
[Profile](#) [Change Password](#) [Log Out](#)

[Home](#) [Charts](#) [Reports](#) [Admin](#) [Ideas](#) [Help](#)

[Flags](#)

Search for a Place
42 results shown

[Hide Menu](#) [Hide Advanced Search Options](#)
[Get communities in current view](#)

States and Regions

Illinois

County

Select a County

Watershed See by: Code Name

Select a Watershed

Select All | Deselect All | Population selected: 0

Community	Population (2010)	Approved Actions
ILLINOIS	12,880,880	0

+ Add Mitigation Action

Filter: **National**

Map Source

Mitigation Action Data

[Show All](#) [Show My Entries](#) [Show Approved Entries](#)

show entries

Showing 1 to 1 of 1 entries (filtered from 5,801 total entries)

Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source
More Info	05	Illinois	Glenview, Village Of	42,884	Flood	Structure and Infrastructure Projects (Flood Control/Management)	In Progress	Local Natural Hazard Mitigation Plan

Search:

[First](#) [Previous](#) [Next](#) [Last](#)

Glenview Detail sheet for: *Drainage Project*

Action Details

[<< Back](#)
[View Action History](#)

Action Name: Drainage Project

Status: In Progress

Influenced by the RiskMAP Process: No

Source: Local/Natural Hazard Mitigation Plan

Plan Name: Glenview Hazard Mitigation Plan 2010

Hazard Name: Flood

Category Name: Structure and Infrastructure Projects

Category Type: Flood Control/Management

Category SubType: Drainage Improvements

Contact Title: Engineering Technician

Contact Name: James Tighe

Responsible Agency: Other

Estimated Cost (Min): \$3,000,000

Estimated Cost (Max): \$2,147,483,647

Estimated Duration (Min): 1 Years

Estimated Duration (Max): 1 Years

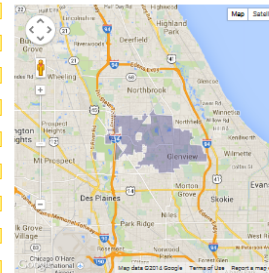
Primary Funding Source: Other

Funding Source Type:

Additional Details:
 The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) has released \$1.4 million in Hazard Mitigation Grant Program (HMGP) funds to the Village of Glenview, IL, for stormwater management system improvements. The project includes the installation of 1,610 linear feet of new storm sewers and one new storm-water detention basin. These stormwater improvements will help reduce the impacts of heavy rain and flooding in the village. Comment: Areas of street flooding and basement flooding from Central Road (IDOT) storm sewer and restricted release at river. Areas: Central and Hawthorn; Central and 150'-radius; Central and Glenwood.Areas of street flooding and basement flooding not directly from riverine flooding but due to reduced storm sewer conveyance when river reaches flood stage. Specific areas: Timbers Edge Subdivision (Lake Ave and Timbers Edge); Northfield Woods Subdivision (Lake Avenue and Magnolia and Linden (Locust/Larch)). Project to increase storm sewer capacity and build detention reservoir. Drainage study in progress. Responsible agency, estimated cost, duration and primary funding agency unknown at this time.

Precise Location:

This action is approved



Population: 42,516

Communities: GLENVIEW, VILLAGE OF (19996), ILLINOIS

Name of Person who Identified Action: James Tighe

Title of Person who Identified Action: Engineer

Date when Action was Identified: 1/27/2014

Action Flags
 Flags added here serve a notes on this particular action. Only one flag per user per action is permitted. To add a flag, click on the "Add Flag" button and fill out the username and note fields. If you add a flag for a user besides yourself, they will receive an e-mail notification alerting them of the flag.

[Add Flag](#)

Highland Park:

FEMA Mitigation Action Tracker

 Welcome mjr@illinois.edu!
[Profile](#) [Change Password](#) [Log Out](#)

[Home](#) [Charts](#) [Reports](#) [Admin](#) [Ideas](#) [Help](#)

[Flags](#)

Search for a Place
E.g. Boulder County

[Hide Menu](#) [Hide Advanced Search Options](#)
Get communities in current view

States and Regions
 Illinois

County
 Select a County

Watershed sort by: Code Name
 07120003: Chicago

Select All | Deselect All | Population selected: 0

Community	Population (2010)	Approved Actions
<input type="checkbox"/> COOK COUNTY *	133,427	7
<input type="checkbox"/> ALSIP, VILLAGE OF	19,369	0
<input type="checkbox"/> BLUE ISLAND, CITY OF	25,447	0
<input type="checkbox"/> BRIDGEVIEW, VILLAGE OF	16,189	1
<input type="checkbox"/> BURBANK, CITY OF	28,958	0

+ Add Mitigation Action

Mitigation Action Data

[Show All](#) [Show My Entries](#) [Show Approved Entries](#)

Showing 1 to 2 of 2 entries (filtered from 5,801 total entries)

Search:

[First](#) [Previous](#) [Next](#) [Last](#)

Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source	
More Info	09	Illinois	Highland Park, City Of	Road Closures Due to Flooding	29,793	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
More Info	09	Illinois	Highland Park, City Of	At Risk Essential Facility	29,793	Flood	Local Planning and Regulations (Other)	Identified	RiskMAP Process

Highland Park Detail sheet for: *Road closures due to flooding*

Action Details

[<< Back](#)

Action Name:
Road Closures Due to Flooding

Status:
Identified

Influenced by the RiskMAP Process:
Yes

Source:
RiskMAP Process

RiskMAP Justification:
Action was ID'd during a RiskMAP meeting

Plan Name:
Lake County All Natural Hazards Mitigation Plan

Hazard Name:
Flood

Category Name:
Structure and Infrastructure Projects

Category Type:
Flood Control, Management

Category SubType:
Drainage Improvements

Contact Title:
Director of Public Works

Contact Name:
Ramesh Kanapareddy

Responsible Agency:
Other

Estimated Cost (Min):
\$0

Estimated Cost (Max):
\$150,000

Estimated Duration (Min):
0 Years

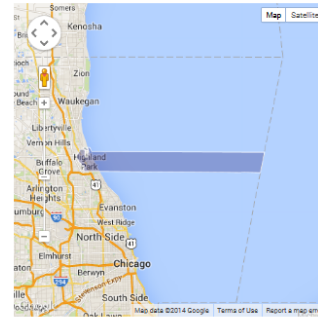
Estimated Duration (Max):
1 Years

Primary Funding Source:
Other

Funding Source Type:

Additional Details:
Street Closure Due to Flooding - Area of Perennial Lane and Taylor Avenue; Area along and north of the Lake Cook Road, Park Avenue; Briargate - Along Middle Fork of NCR; Hiawatha PL - Village of the Woods Subdivision along Skokie River. Responsible agency, estimated cost, duration, and primary funding agency have not been determined by the community at this time.

This action is **Approved**



Population:
29,793

Communities:
HIGHLAND PARK, CITY OF (47026), ILLINOIS

Name of Person who Identified Action:
Ramesh Kanapareddy

Title of Person who Identified Action:
Public Works Director

Date when Action was Identified:
11/13/2013

Action Flags

Flags added here serve as notes on this particular action. Only one flag per user per action is permitted. To add a flag, click on the 'Add Flag' button and fill out the username and note fields. If you add a flag for a user besides yourself, they will receive an e-mail notification alerting them of the flag.

[Add Flag](#)

Lincolnshire:

Search for a Place
E.g. Boulder County

[Hide Menu](#) [Hide Advanced Search Options](#)

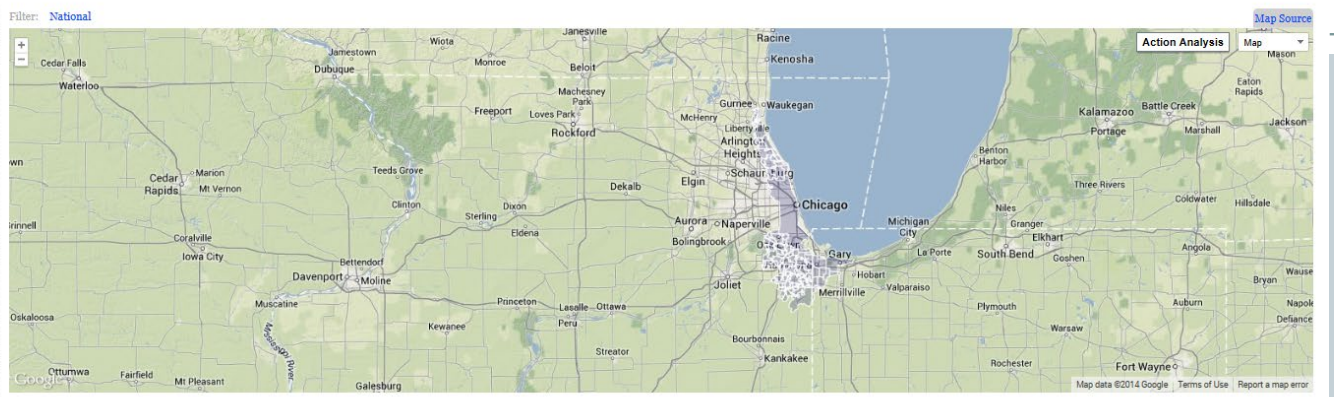
States and Regions

County

Watershed Sort by: Code Name

Population selected: 0

Community	Population (2010)	Approved Actions
<input type="checkbox"/> COOK COUNTY *	133,427	7
<input type="checkbox"/> ALSIP, VILLAGE OF	19,369	0
<input type="checkbox"/> BLUE ISLAND, CITY OF	23,447	0
<input type="checkbox"/> BRIDGEVIEW, VILLAGE OF	16,189	1
<input type="checkbox"/> BURBANK, CITY OF	28,958	0



Mitigation Action Data

[Show All](#) [Show My Entries](#) [Show Approved Entries](#)

Showing entries (filtered from 5,801 total entries)

Search: [First](#) [Previous](#) [Next](#) [Last](#)

	Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source
More Info	05	Illinois	Lincolnshire, Village Of	Streambank Stabilization Project	6,975	Flood	Natural Systems (Stream Maintenance)	In Progress	RiskMAP Process
More Info	05	Illinois	Lincolnshire, Village Of	Significant Riverine Erosion Project	6,975	Flood	Natural Systems (Stream Maintenance)	Scoped	Other

Lincolnshire Detail sheet for: *Stream bank stabilization project*

Action Details

<< Back
View Action History

Action Name:
Streambank Stabilization Project

Status:
In Progress

Influenced by the RiskMAP Process:
Yes

Source:
RiskMAP Process

RiskMAP Justification:

Plan Name:
Lake County All Natural Hazards Mitigation Plan

Hazard Name:
Flood

Category Name:
Natural Systems

Category Type:
Stream Maintenance

Category SubType:

Contact Title:
Engineering Supervisor

Contact Name:
Robert E. Horne

Responsible Agency:
Other

Estimated Cost (Min):
\$0

Estimated Cost (Max):
\$120,000

Estimated Duration (Min):
0 Years

Estimated Duration (Max):
1 Years

Primary Funding Source:
Community

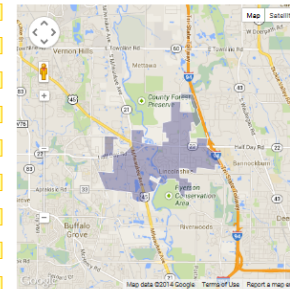
Funding Source Type:
General Funds

Additional Details:
Have designed, bid, and awarded contract to mitigate severe erosion problem caused by large discharge cross flow with river (North Branch). Was started in November last year. Landscaping to be completed in May.

Precise Location:
N/A

Created By:
hubbart@illinois.edu-4/7/2014
hubbartm Per

This action is Approved



Population:
6,078

Communities:
LINCOLNSHIRE VILLAGE OF (170378), ILLINOIS

Name of Person who Identified Action:
Robert E. Horne

Title of Person who Identified Action:
Engineering Supervisor

Date when Action was Identified:
11/14/2013

Action Flags

Flags added here serve a notice on this particular action. Only one flag per user per action is permitted. To add a flag, click on the "Add Flag" button and fill out the username and note fields. If you add a flag for a user besides yourself, they will receive an e-mail notification alerting them of the flag.

[Add Flag](#)

Admin tab: requires administrative access



Home Charts Reports Admin Ideas Help Flags

Manage Submitted Mitigation Actions

Region

State

[Show All](#) [Show Approved](#) [Show Unapproved](#)

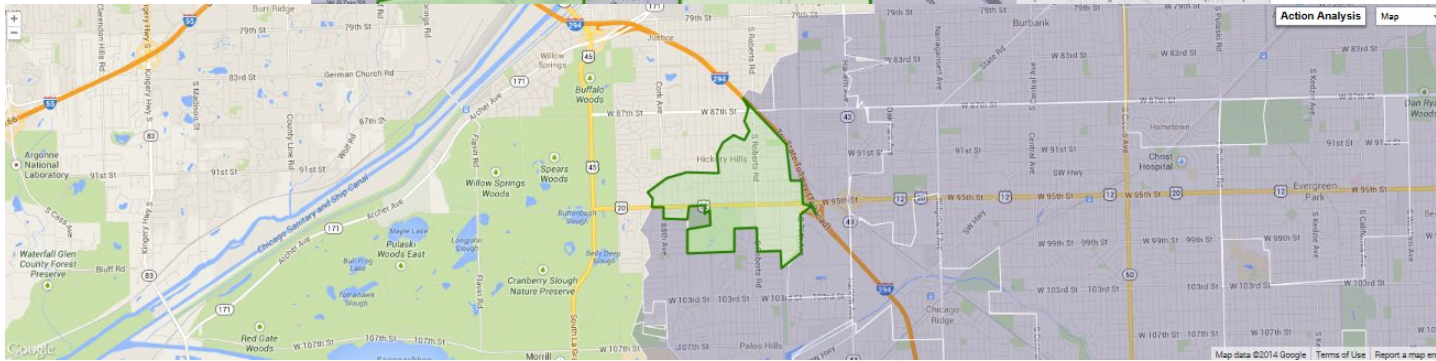
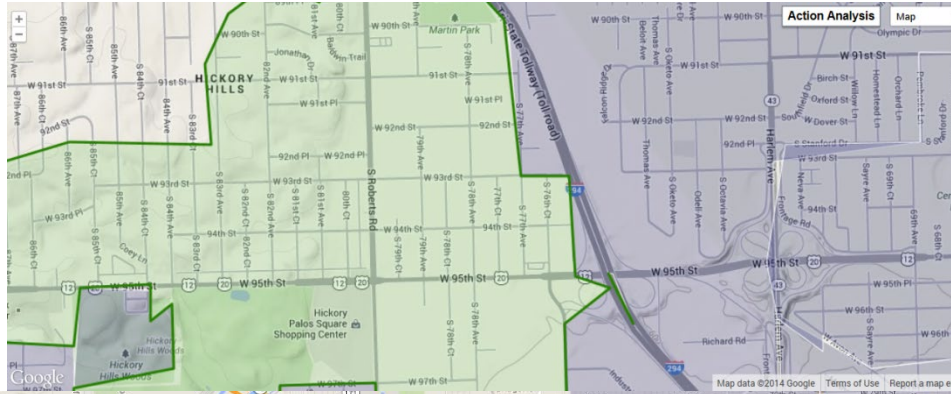
Show entries Search:

Showing 1 to 2 of 2 entries (filtered from 7,286 total entries)

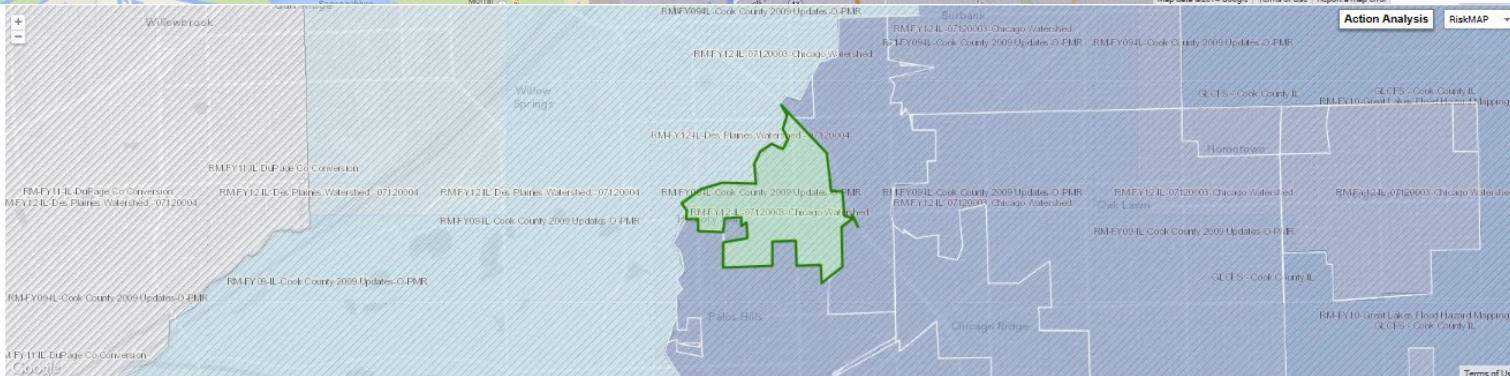
Action	Region	State	Community	Action Name	Hazard	Category (Type)	Status	Source	Created
<input type="checkbox"/> More Info Edit	05	Illinois	Northbrook, Village Of	Critical Facilities Identification	Multiple Hazards	Local Planning and Regulations (Other)	Identified	RiskMAP Process	hubbartt @illinois.edu 5/5/2014
<input type="checkbox"/> More Info Edit	05	Illinois	Northbrook, Village Of	Spillway Project	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	Other	hubbartt @illinois.edu 4/7/2014

Source Map options- various scales as needed

Map Source: Map



Map Source: Map with terrain



Map Source: RiskMAP

Pull-down menu to navigate to Charts and Reports

Site navigation

FEMA Mitigation Action Tracker

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[Profile](#) [Change Password](#) [Log Out](#)

[Home](#) [Charts](#) [Reports](#) [Admin](#) [Ideas](#) [Help](#) [Flags](#)

Search for a Place
E.g. Boulder County

Search for a place on the map
[« Hide Menu](#) [Hide Advanced Search Options](#)

Get communities in current view

Filter: **National** [Map Source](#)

States and Regions
Illinois

County
Select a County

Watershed Sort by: [Code Name](#)
07120003: Chicago

<input type="checkbox"/>	HAZEL CREST, VILLAGE OF	14,109	0
<input type="checkbox"/>	HICKORY HILLS, CITY OF	13,960	8
<input type="checkbox"/>	HOMWOOD, VILLAGE OF	19,245	0
<input type="checkbox"/>	JUSTICE, VILLAGE OF	12,968	1

Mitigation Action Form

pdf

Data Output: Mitigation Action Charts

FEMA Mitigation Action Tracker

Welcome mjr@illinois.edu
[Profile](#) [Change Password](#) [Log Out](#)

Home
Charts
Reports
Admin
Ideas
Help
Flags

Search for a Place
E.g. Boulder County

[« Hide Menu](#) [Hide Advanced Search Options](#)

Mitigation Action Form

States and Regions

Get communities

States and Region

Illinois

County

Select a County

Watershed Sort by: C

Select a Watershed

Select All | Deselect All | P

Community

ILLINOIS

Mitigation Action Charts

Data displayed below is live data reported from the Mitigation Action Tracker database and within communities. As you refine your search area, from Region to State throughout the nation and is not meant for detailed analysis or reporting. If you

Currently, these charts are being filtered to the following level:
National :: Illinois

Hazards Addressed by Actions

Below is the number of hazards addressed by approved and active mitigation actions aggregated by their hazard type and grouped by their geographic region. Results are limited to the top 15 records.

Filtered on Illinois

Actions by Status Type

Per state, the number of approved and active mitigation actions aggregated by their current status. Results are limited to the top 15 records.

Filtered on Illinois

Actions by Category

Per state, the number of approved and active mitigation actions aggregated by their indicated Category. Results are limited to the top 15 records.

Filtered on Illinois

Hazards Addressed by Actions

Below is the number of hazards addressed by approved and active mitigation actions aggregated by their hazard type and grouped by their geographic region. Results are limited to the top 15 records.

Filtered on Illinois

Actions by Agency

Per state, the number of approved and active mitigation actions aggregated by their indicated Responsible Agency. Results are limited to the top 15 records.

Filtered on Illinois

Actions by Primary Funding Source

Per state, the number of approved and active mitigation actions aggregated by their indicated Primary Funding Source. Results are limited to the top 15 records.

Filtered on Illinois

Data Output: Reports

FEMA Mitigation Action Tracker

Reports Admin Ideas Help

Mitigation Action Tracker Reporting

Select a report

- Select -
- Summary of Actions
- Risk MAP Deployment
- Risk MAP Actions Identified
- Risk MAP Actions Advanced
- Available Population
- Raw Database Output
- Regional Database Output
- Communities By Watershed
- State Level Actions
- Risk Map Communities By Region
- Risk Map Communities By State

Mitigation Action and RiskMAP Measures

This report shows all the communities, co

County Name	Community Name	Plan Name	Action Name	State
Responsible Agency				
Additional Detail				
KIPDA Regional Hazard Mitigation Plan				
ANCHOR ESTATES - ANCHOR ESTS PS 1 & 2 PS ELIMINATIONS				
Public Works				
ANCHOR ESTATES - ANCHOR ESTS PS 1 & 2 PS ELIMINATIONS Ac				
KIPDA Regional Hazard Mitigation Plan				
LUCAS LN PS INLINE STORAGE				
Public Works				
LUCAS LN PS INLINE STORAGE Action: Metropolitan Sewer District - I				
Total Communities: 0				
Total Countries: 0				
Total States: 0				
NEW HAMPSHIRE				
GRAFTON				

Excel spreadsheets

- Raw Data Output
- Regional Database Output

Non-electronic FEMA Mitigation Action Form- pdf download <http://fema.starr-team.com>

Mitigation Action Form



FEMA Mitigation Action Collection Form
Version 6/4/2012

Mitigation Action Information

Below please enter information as it directly applies to the mitigation action you are discussing.

4. Jurisdiction Name(s) ^{Required}

Please provide the full name of the Jurisdiction where the Mitigation Action applies, e.g.: City of Boulder, CO

Purpose and Help

This form is meant to assist the collection of Mitigation Actions.

Online Mitigation Action Collection:
<http://fema.starr-team.com>

State Hazard Mitigation Officers Directory:
<http://www.fema.gov/about/contact/shmo.shtm>

Your Information

Please enter the primary contact associated with this Mitigation Action.

1. Full Name ^{Required}

Please provide your full name, e.g.: Michael Smith

2. Email Address ^{Required}

Please provide your email address, e.g.: example@example.com

3. Your Title and Organization ^{Required}

Please provide your relevant title and organization as it applies to this form, e.g.: Floodplain Administrator, City of Boulder, Colorado.



Scan this image with your smartphone to visit the Mitigation Action Collection website.

9. Hazard Type ^{Required}

Select the main type of hazard affected by this Mitigation Action. Check/circle only one.

- | | | |
|---|---|---|
| <input type="checkbox"/> Erosion | <input type="checkbox"/> Hurricane | <input type="checkbox"/> Tornado |
| <input type="checkbox"/> Extreme Temperatures | <input type="checkbox"/> Landslide | <input type="checkbox"/> Tsunami |
| <input type="checkbox"/> Dam/Levee Failure | <input type="checkbox"/> Lightning | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Drought | <input type="checkbox"/> Severe Winter Storms | <input type="checkbox"/> Wind |
| <input type="checkbox"/> Earthquake | <input type="checkbox"/> Storm Surge | <input type="checkbox"/> Multiple Hazards |
| <input type="checkbox"/> Flood | <input type="checkbox"/> Subsidence | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Hail | | |

10. Mitigation Category ^{Required}

Select the type of Mitigation effort being undertaken.

- Local Plans and Regulations
These activities include government administration that influence the way land and buildings are developed into such activities is one of the most effective.
- Structure and Infrastructure Projects
These actions involve modifying existing structures to hazard or remove them from a hazard area.
- Community Identified Program
These are community efforts to reduce risk.

11. Category Type and Subtype ^{Required if Applicable}

Please see Part B, Reference Sheet for applicable filing out this form. More complete and accurate.

Type:

12. Mitigation Action Commitment ^{Required if Applicable}

Please indicate the level of commitment associated with this Mitigation Action. Mitigation Commitment seeks to clarify if the action is maintaining or strengthening something the community seeks to "Strengthen Existing" flood ordinances.

- Maintain Existing
- Strengthen Existing
- Add New



Scan this image with your smartphone to visit the Mitigation Action Collection website.

13. Responsible Agency ^{Required}

Please indicate the Agency that will be responsible for this Mitigation Action. Check/circle only one.

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Building Code Department | <input type="checkbox"/> Planning |
| <input type="checkbox"/> Community Development | <input type="checkbox"/> Public Works |
| <input type="checkbox"/> Emergency Management | <input type="checkbox"/> State DOT |
| | <input type="checkbox"/> Other _____ |

14. Estimated Project Span

Enter the estimated start and completion of the project. Please use the mm/dd/yyyy format.

FEMA Mitigation Action Collection Form
Version 6/4/2012

Mitigation Action Form



Part B : Reference Sheet

Category Types and SubTypes

Use for answering Question 11.

Local Plans and Regulations

- Building Codes
 - Enforcement
 - International Building Code
 - International Residential Code
 - Higher Standards
 - Post Disaster Code Enforcement
 - Other
- Capital Improvement Plan
- Coastal Zone Management
- Comprehensive Plan
- Easements
- Floodplain Management
- Master Plan
- Open Space Preservation
- Setbacks
- Stormwater Management
- Subdivision Ordinance
- Zoning
- Other

Community Identified Program

- Funding Mechanisms for Local Risk Reduction
- Incentives for Local Risk Reduction
- Mitigation Program
 - Fire Protection
 - Stream Maintenance
 - Tree Management
 - Other

Structure and Infrastructure Projects

- Acquisition
- UH Albedo Enhancement
- Elevation
 - Structure
 - Utilities
 - Other
- Flood Control/Management
 - Culvert
 - Bridge Expansion
 - Detention Basin
 - Dams
 - Drainage Improvements
 - Green Roofs
 - Jetties
 - Levees
 - Permeable Paving
 - Rain Gardens
 - Revetments
 - Seawalls
 - Other
- Forest or Vegetation Management
- Natural Systems
 - Beach Nourishment
 - Dune Rehabilitation/Protection
 - Ground Water Recharge
 - Sediment Trapping Vegetation
 - Wetlands Restoration
 - Other
- Retrofit
 - Structural
 - Non-Structural
 - Other
- Safe Room Construction
- Soil Stabilization or Erosion Control
 - Sloping/Grading
 - Vegetation
 - Terracing
 - Rip Rap
 - Geotextile Fabric
- Underground Utilities
- Other



Scan this image with your smartphone to visit the Mitigation Action Collection website.

FEMA Mitigation Action Collection Form
Version 6/4/2012

Funding Types

Use for answering Question 17.

- Community
- Bonds
- General Funds
- Tax Levies
- Other

Private Sector, including Foundations

Regional Water Management District

County

State

- FEMA
- PA
- PCM
- HMGIP
- FMA
- SRL
- REC
- Other

Other Federal Agency

- HUD
- ESM
- EPA
- DOT
- BA
- NOAA
- USGS
- NRCS
- Other

Property Owner

Other

FEMA-Mitigation Action Ideas

17 Action Ideas for reducing risk to natural hazards

The screenshot displays the FEMA Mitigation Action Tracker website. At the top, there is a navigation bar with 'Home', 'Ideas', and 'Help' links. A red arrow points to the 'Ideas' link. The main content area is titled 'Ideas' and contains a grid of 17 cards, each representing a different natural hazard. Each card includes a title, a small icon, and a brief description of the mitigation ideas available for that hazard. The 'Mitigation Action Ideas' card is highlighted in yellow.

Search for
 E.g. Boulder
 Search
 Home Charts Reports Admin Ideas Help

Welcome mjr@illinois.edu!
 Profile Change Password Log Out

Flags

Mitigation Action Form
 Welcome mjr@illinois.edu!
 Change Password Log Out

Flags

Get con

Ideas
 The purpose of the Mitigation Ideas document is to be a resource that communities can use to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters. The focus of this document is mitigation, which is action taken to reduce or eliminate long-term risk to hazards. Ideas for mitigation actions are presented for the following natural hazards:

Action Ideas

States National
 County Select a
 Watersh Select a
 Cor
 Select a Lo

+ Add M

Mitig

Map Source

Map Source

Terms of Use

North Atlantic Ocean

Mitigation Action Ideas
 A resource that communities can use to identify and evaluate a range of potential mitigation actions for reducing risk to natural hazards and disasters.

Drought
 Drought Mitigation Ideas
 See the section entitled **Multiple Hazards** for other possible ideas.

Earthquake
 Earthquake Mitigation Ideas
 See the section entitled **Multiple Hazards** for other possible ideas.

Erosion
 Erosion Mitigation Ideas
 See the sections entitled **Subsidence, Landslide, and Multiple Hazards** for other possible ideas.

Flood
 Flood Mitigation Ideas
 See the sections entitled **Storm Surge, Erosion, and Multiple Hazards** for other possible ideas.

Hail
 Hail Mitigation Ideas
 See the section entitled **Multiple Hazards** for other possible ideas.

Landslide
 Landslide Mitigation Ideas
 See the sections entitled **Erosion, Subsidence, and Multiple Hazards** for other possible ideas.

Lightning
 Lightning Mitigation Ideas
 See the section entitled **Multiple Hazards** for other possible ideas.

Wildfire
 Wildfire Mitigation Ideas
 See the section entitled **Lightning, Extreme Temperatures, Drought, and Multiple Hazards** for other possible ideas.

Tornado
 Tornado Mitigation Ideas
 See the sections entitled **Severe Wind and Multiple Hazards** for other possible ideas.

Tsunami
 Tsunami Mitigation Ideas
 See the section entitled **Flood, Storm Surge, and Multiple Hazards** for other possible ideas.

Storm Surge
 Storm Surge Mitigation Ideas
 See the section entitled **Flood and Multiple Hazards** for other possible ideas.

Subsidence
 Subsidence Mitigation Ideas
 See the section entitled **Landslide, Erosion, and Multiple Hazards** for other possible ideas.

Extreme Temperatures
 Extreme Temperature Mitigation Ideas
 See the section entitled **Flood and Multiple Hazards** for other possible ideas.

Sea Level Rise
 Sea Level Rise Mitigation Ideas
 See the section entitled **Flood, Storm Surge, Erosion, and Multiple Hazards** for other possible ideas.

Severe Wind
 Severe Wind Mitigation Ideas
 See the section entitled **Tornado and Multiple Hazards** for other possible ideas.

Multiple Hazards
 Multiple Hazards Mitigation Ideas
 For other possible ideas see the other sections on various Natural Hazards.

Severe Winter Weather
 Severe Winter Weather Mitigation Ideas
 See the section entitled **Extreme Temperatures and Multiple Hazards** for other possible ideas.



Mitigation Ideas

A Resource for Reducing Risk to Natural Hazards

January 2013



FEMA



Drought

Flood

Tornado

A tornado is a violently rotating column of air that has contact with the ground and is often visible as a funnel cloud. The destruction caused by tornadoes ranges from light to catastrophic depending on the intensity, size, and duration of the storm. Typically, tornadoes cause the greatest damage to structures of light construction, including residential dwellings and particularly manufactured homes. Tornadoes are more likely to occur during the months of March through May and tend to form in the late afternoon and early evening.

Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection, and Education and Awareness Programs

Local Planning and Regulation

F-1 Incorporate Flood Mitigation in Local Planning

FEMA Resources/Publications
FEMA 100, 268, 473

- Compre flooding
- Dete risk
- Flood corr
- Deve it reg
- Mity deci
- exp
- Ado regu
- Pass stree
- Esta exp
- Oble priv

F-2 Form Partnerships to Support Floodplain Management

- Partner resourc
- Deve disc
- Form reso
- and
- Esta flood
- Form mor
- repr local



22 Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards

Local Planning and Regulations

F-3 Limit or Restrict Development in Floodplain Areas

FEMA Resources/Publications
FEMA 100, 268, 473

F-4 Adopt and Enforce Building Codes and Development Standards

FEMA Resources/Publications
FEMA 100, 268, P-762

Local Planning and Regulations

F-9 Manage the Flood Beyond Minimum Requirements

FEMA Resources/Publications
FEMA 100, 209, 213, 268, 480;
FIA-15A

F-10 Participate in the CR

FEMA Resources/Publications
FEMA 100, 209, 213, 268, 480;
FIA-15A

F-11 Establish Local Funding Mechanisms for Flood Mitigation

26 Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards

Structure and Infrastructure Projects

F-15 Elevate or Retrofit Structures and Utilities

FEMA Resources/Publications
FEMA 54, P-85, 114, P-259, 347,
P-348, P-499

Structures and utilities can be elevated to reduce flood damage, including:

- Elevating structures so that the lowest floor, including the basement, is raised above the base flood elevation.
- Raising utilities or other mechanical devices above expected flood levels.
- Elevating and anchoring manufactured homes or, preferably, keeping manufactured homes out of the floodplain.
- Relocating utilities and water heaters above base flood elevation and using tankless water heaters in limited spaces.

F-16 Floodproof Residential and Non-Residential Structures

FEMA Resources/Publications
FEMA P-55, 114, P-259

Floodproofing techniques may protect certain structures from flood damage, including:

- Wet floodproofing in a basement, which may be preferable to attempting to keep water out completely because it allows for controlled flooding to balance exterior and interior wall forces and discourages structural collapse.
- Encouraging wet floodproofing of areas above base flood elevation.
- Using water resistant paints or other materials to allow for easy cleanup after floodwater exposure in accessory structures or in a garage area below an elevated residential structure.
- Dry floodproofing non-residential structures by strengthening walls, sealing openings, or using waterproof compounds or plastic sheeting on walls to keep water out.



28 Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards

When should mitigation actions be identified and documented?



- Identification and documentation can take place at **any time**.
- Users should **not wait** for resilience meetings, which can be years away from project initiation.

Mitigation Action Tracker



AT COMMUNITY AND STATE LEVEL CAN BE MORE THAN A METRIC

CAN HELP WITH:

- **COLLABORATION AND BEST PRACTICES**
- **WATERSHED PLANNING**
- **PRE-AND POST- DISASTER PROJECT INVENTORIES**

REMEMBER MAT IS A *DYNAMIC* DATABASE THAT IS BEING UPDATED REGULARLY



ILLINOIS STATE
WATER SURVEY
PRAIRIE RESEARCH INSTITUTE

Pat Hubbartt : hubbartt@illinois.edu
Mary Richardson: mjr@illinois.edu



If card does not work to access the wi-fi use
the following slides to run through
Mitigation Action upload

Data entry:-

- having selected the State\Region, County \ Watershed, select the community of interest:



FEMA Mitigation Action Tracker

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Home Charts Reports Admin Ideas Help

Search for a Place
E.g. Boulder County

Search for a place on the map
Hide Menu Hide Advanced Search Options
Get communities in current view

States and Regions
Illinois

County
Select a County

Watershed sort by: Code Name
07120003: Chicago

HARVEST, CITY OF
 HARWOOD HEIGHTS, VILLAGE OF
 HAZEL CREST, VILLAGE OF
 HOMEWOOD, VILLAGE OF
 JUSTICE, VILLAGE OF
 KENILWORTH, VILLAGE OF

+ Add Mitigation Action

Mitigation Action Data
Show All Show My Entries Show Approved
Show 100 entries
Showing 1 to 100 of 254 entries (filtered from 254 total entries)

Region	State	Community
09	Illinois	City/Village Of
09	Illinois	Algonquin, Village Of
09	Illinois	Barrington, Village Of
09	Illinois	Crystal Lake, City Of
09	Illinois	Kane County
09	Illinois	Fisher, Village Of
09	Illinois	Monsieula, City Of

New Mitigation Action

Mitigation Action Form

Intro Step 1 Step 2 Review Finish

This form is used to create or edit mitigation actions. Please fill out the form as completely as possible, required fields are annotated as such. If you select "Other" for any of the categories please explain in Additional Details under Step 2. The currently selected communities associated with the action are:

Community	Population (2010)
HICKORY HILLS, CITY OF	13,960

Sum of Community Population(s) Associated with this Mitigation Action: 13,960

Action	Hazard	Status	Created By	Last Modified
More Info Increase the existing retent...	Flood	Identified	mjr@illinois.edu	11/1/2013
More Info Flooding Cook County Fores...	Flood	Identified	mjr@illinois.edu	11/1/2013
More Info Expand the existing detent...	Flood	Identified	mjr@illinois.edu	11/1/2013
More Info Expand the existing detent...	Flood	Identified	mjr@illinois.edu	11/1/2013
More Info Redesign the existing retent...	Erosion	Identified	mjr@illinois.edu	11/1/2013
More Info Proposed retention detent...	Flood	Identified	mjr@illinois.edu	11/1/2013
More Info Overtopping of Roberts Roa...	Flood	Identified	mjr@illinois.edu	11/1/2013
More Info Proposed detention pond 97...	Flood	Identified	mjr@illinois.edu	11/1/2013

Category (Type) Status Source

Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
Structure and Infrastructure Projects (Flood Control/Management)	In Progress	Other
Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
Local Planning and Regulations (Zoning & Ordinances)	In Progress	RiskMAP Process
Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
Structure and Infrastructure Projects (Flood Control/Management)	Completed	RiskMAP Process



Browser address bar: http://fema-starr-team.com/Admin/MitigationActionAdmin.aspx

Browser tabs: Customer Log In Box, The Economist - World N..., Your Courses Coursea, TEM Resource Page - OBFS, BBC News - World, P-Card - OBFS, iBuy (online purchasing) ..., Coordinated Hazard Asses..., fema Mapping Informatio..., USGS WaterWatch -- Strea..., AJE - Al Jazeera English

Illinois	Cook County *	Buyout/Elevate Flood Prone Properties	Flood	Structure and Infrastructure Projects (Acquisition)	Identified	RiskMAP Process
Illinois	Cook County *	Elevate Grey Lynn Road	Flood	Structure and Infrastructure Projects (Elevation)	Completed	RiskMAP Process
Illinois	Cook County *			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Cook County *			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Cook County *			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Glenview, Village Of			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Cook County *			Structure and Infrastructure Projects	In Progress	Capital Improvement Plan
Illinois	Glenview, Village Of			Structure and Infrastructure Projects	In Progress	Capital Improvement Plan
Illinois	Arlington Heights, Villa			Structure and Infrastructure Projects	In Progress	Capital Improvement Plan
Illinois	Arlington Heights, Villa			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Cook County *			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Glenview, Village Of			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Justice, Village Of			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Monticello, City Of			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Maroon County *			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Monticello, City Of			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Maroon County *			Structure and Infrastructure Projects	In Progress	RiskMAP Process
Illinois	Monticello, City Of			Structure and Infrastructure Projects	Identified	RiskMAP Process
Illinois	Maroon County *			Structure and Infrastructure Projects	Completed	RiskMAP Process
Illinois	Stonington, Village Of			Structure and Infrastructure Projects	Completed	RiskMAP Process

New Mitigation Action

Mitigation Action Form

Intro Step 1 Step 2 Review Finish

Mitigation Activity Name ^{Req}
Please enter the Mitigation Activity Name

Mitigation Action Status ^{Req}
Please indicate the current status of the Mitigation Action

Identified

Scoped

In Progress

Completed

Hazard Type ^{Req}
Select the main type of hazard affected by this Mitigation Action

Action

Flood

Hail

Hurricane Wind

Landslide

Lightning

Mitigation Activity Precise Location
Please enter a specific Latitude and Longitude
 Lat Long

RiskMAP Process
Please indicate if this action arose or was identified during the RiskMAP Process
 Yes, this was influenced by the RiskMAP Process

Mitigation Action Source ^{Req}
Please indicate the source of this Mitigation Action

HMA Database

Local Natural Hazard Mitigation Plan

RiskMAP Process

State Risk Mgmt Team (Silver Jackets)

Other

Mitigation Plan Name
Please enter the name of the Mitigation Plan that covers this Mitigation Activity

Contact Title
The relevant Title of the primary local contact for this action

Contact Name
The name of the primary local contact for this action

« Back Next » Cancel

FEMA Mitigation Action Tracker

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Search for a Place

E.g. Boulder County

Search for a place on the map

[Hide Menu](#) [Hide Advanced Search Options](#)

Get communities in current view

States and Regions

Illinois

County

Select a County

Watershed

Sort by: Code Name

07130006: Upper Sangamon

Watershed	Population	Area
<input type="checkbox"/> RANTOUL, VILLAGE OF	12,449	0
<input checked="" type="checkbox"/> PIATT COUNTY*	5,962	0
<input type="checkbox"/> CHAMPAIGN COUNTY*	48,537	0
<input type="checkbox"/> STONINGTON, VILLAGE OF	890	0
<input type="checkbox"/> CHRISTIAN COUNTY*	11,421	0
<input type="checkbox"/> MOUNT AUBURN, VILLAGE OF	480	0

+ Add Mitigation Action

Mitigation Action Data

[Show All](#) [Show My Entries](#) [Show Approved Entries](#)

Show 10 entries

Showing 1 to 10 of 51 entries (filtered from 4,006 total entries)

Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source	
More Info	05	Illinois	Winnemago County	Update Winnemago County HM Plan	67,911	Other	Local Planning and Regulations (Comprehensive Plan)	Identified	RiskMAP Process
More Info	05	Illinois	McHenry, City Of	Lakeland Park Drainage Ditch Dredge Proj...	23,224	Flood	Structure and Infrastructure Projects	Identified	RiskMAP Process

New Mitigation Action

Mitigation Action Form

- Intro
- Step 1
- Step 2
- Review
- Finish

Responsible Agency^{*Req}

Please indicate the Agency that will be responsible for this

Mitigation Action

- Building Code Department
- Community Development
- Emergency Management
- Fire Department
- Planning

Estimated Duration^{*Req}

Please select the approximate duration for the project.

- Select -

Estimated Cost

Enter the estimated cost for the project

- Select -

Mitigation Category^{*Req}

Select the type of Mitigation effort being undertaken

- Local Planning and Regulations
- Natural Systems
- Structure and Infrastructure Projects

Category Type

Please select the type of activity based on the Mitigation

Category

- Select -

Category Sub-Type

Please select the subtype of activity based on the Category

Type

- Select -

Primary Funding Source^{*Req}

Please indicate the expected funding source for the project

- Community
- USACE
- County
- Development Impact Fees
- FEMA

Funding Sub-Category

Please indicate the expected funding source sub-category

- Select -

Additional Details

If you would like to enter additional information, please fill in

the text box below.

Additional Details

- « Back
- Review »
- Cancel

Map Source

Action Analysis Map

Map data ©2013 Google Terms of Use Report a map error

Search: Search Table

FirstPrevious12345NextLast

Data Review



Action Details

[<< Back](#)

Action Name:
Increase the existing retention pond at Prairie Pond on S. Sand Ave.

Status:
Identified

Influenced by the RiskMAP Process:
Yes

Source:
RiskMAP Process

RiskMAP Justification:
Action was ID'd during a RiskMAP meeting

Plan Name:

Hazard Name:
Flood

Category Name:
Structure and Infrastructure Projects

Category Type:
Flood Control/Management

Category SubType:
Detention/Retention Basin

Contact Title:
Director of Public Works

Contact Name:
Larry Bentscher

Responsible Agency:
Other

Estimated Cost (Min):
(\$0.000)

Estimated Cost (Max):
(\$0.000)

Estimated Duration (Min):
0 Years

Estimated Duration (Max):
1 Year

Primary Funding Source:
Other

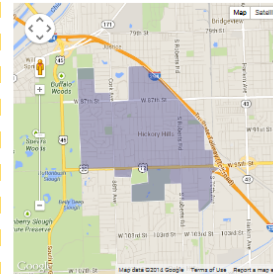
Funding Source Type:

Additional Details:
INCREASE EXISTING CITY RETENTION (120'-400'-feet)- PRAIRIE POND ON SAND AVE. at 8100 S.C. Increased detention would reduce flooding in our City but also benefit adjacent downstream Towns of Justice and Bridgeland. Over last fifteen year retention pond has overflowed and water has backed onto 8th Street onto Cook County's Highway Department (OCHD) system. 8th St. is a major East-West artery with truck traffic usage to/from La Grange Road (Rte. 12/20). Expansion of existing retention pond by purchasing one or two of private modest single houses located adjacent for expansion. One is located at 8100 South Sand Ave. and the second at 8100 S. Sand Ct. Then excavating new area(s) to increase capacity by guesstimated of 10-15% for each property. OUTFLOW - drainage aft. 3 ft. box culvert to N. E. below IL Toll-way (Dike area) about mile-long sp. Estimated duration, cost, funding source, funding sub-category and Responsible Agency are unknown at this time and depend on the decisions made by the community concerning the project.

Precise Location:
N/A

Created by:
mpj @ illinois.edu 11/1/2013

This action is **Approved**



Population:
13,090

Communities:
HICKORY HILLS, CITY OF (1701013), ILLINOIS

Name of Person who Identified Action:

Title of Person who Identified Action:


Date when Action was Identified:

Action Flags

Flags added here serve a notes on this particular action. Only one flag per user per action is permitted. To add a flag, click on the 'Add Flag' button and fill out the username and note fields. If you add a flag for a user besides yourself, they will receive an e-mail notification alerting them of the flag.

[Add Flag](#)

Admin tab:- For edits and updates to entry



FEMA Mitigation Action Tracker

Welcome **mjr@illinois.edu!**

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Manage Submitted Mitigation Actions

Region:

State:

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Show entries Search:

Showing 1 to 25 of 191 entries (filtered from 7,000 total entries) First Previous **1** 2 3 4 5 Next Last

Action	Region	State	Community	Action Name	Hazard	Category (Type)	Status	Source	Created
<input type="checkbox"/> More Info Edit	05	Illinois	Cary, Village Of	Culvert Expansion	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process	hubbart @illinois.edu 7/23/2013
<input type="checkbox"/> More Info Edit	05	Illinois	Algonquin, Village Of	Enlarge Box Culverts/Elevate Road	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process	hubbart @illinois.edu 7/24/2013
<input type="checkbox"/> More Info Edit	05	Illinois	Barrington, Village Of	Stream Flow Constriction Project	Flood	Structure and Infrastructure Projects (Flood Control/Management)	In Progress	Other	hubbart @illinois.edu 7/25/2013
<input type="checkbox"/> More Info Edit	05	Illinois	Crystal Lake, City Of	Culvert Repair/Replacement Project	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process	hubbart @illinois.edu 7/26/2013
<input type="checkbox"/> More Info Edit	05	Illinois	Kane County *	New Study / Map Update	Flood	Local Planning and Regulations (Zoning & Ordinances)	In Progress	RiskMAP Process	hubbart @illinois.edu 8/7/2013
<input type="checkbox"/> More Info Edit	05	Illinois	Fisher, Village Of	Replace 2nd Street\Wildcat Creek bridge	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process	mjr @illinois.edu 8/9/2013
<input type="checkbox"/> More Info Edit	05	Illinois	Monticello, City Of	Extension of Washington Street Culvert	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Completed	RiskMAP Process	mjr @illinois.edu 8/12/2013
						Local Planning and Regulations			hubbart