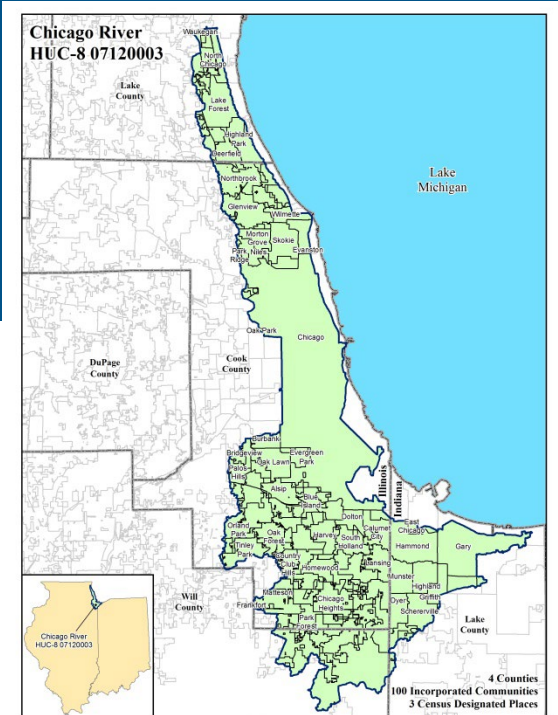




# FEMA

# 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



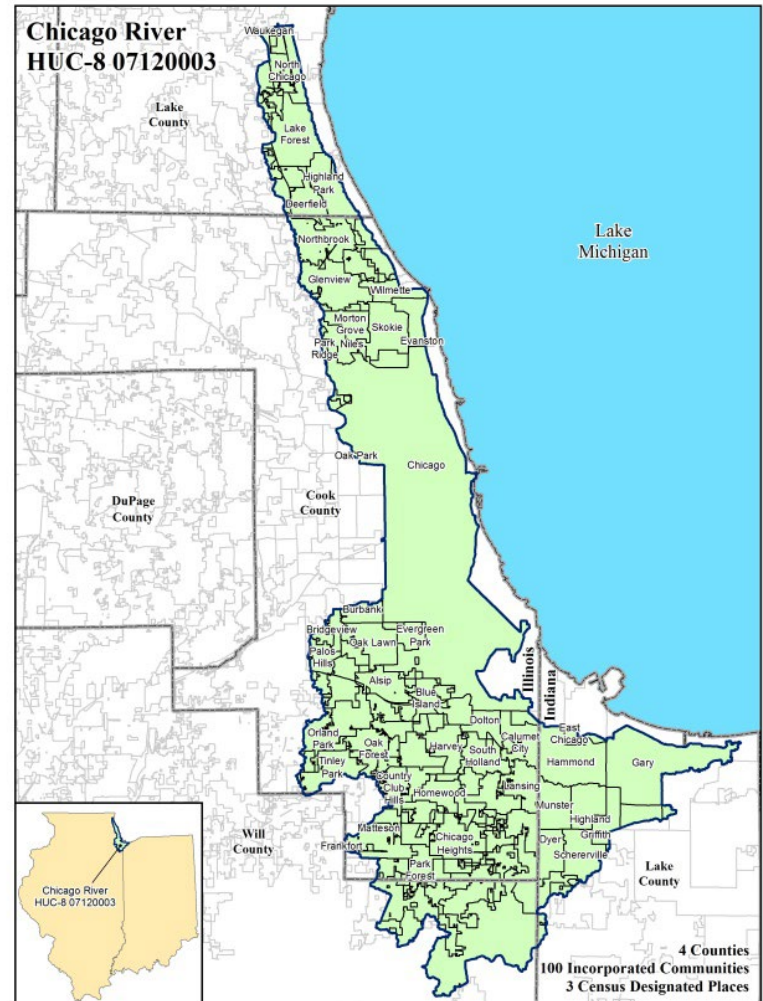
**ILLINOIS**  
 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

**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](http://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

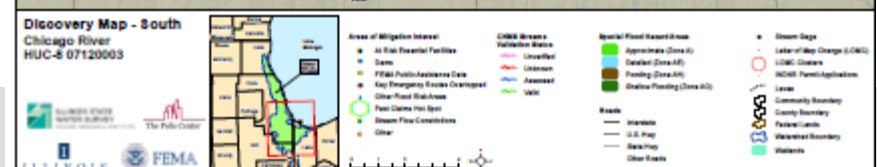
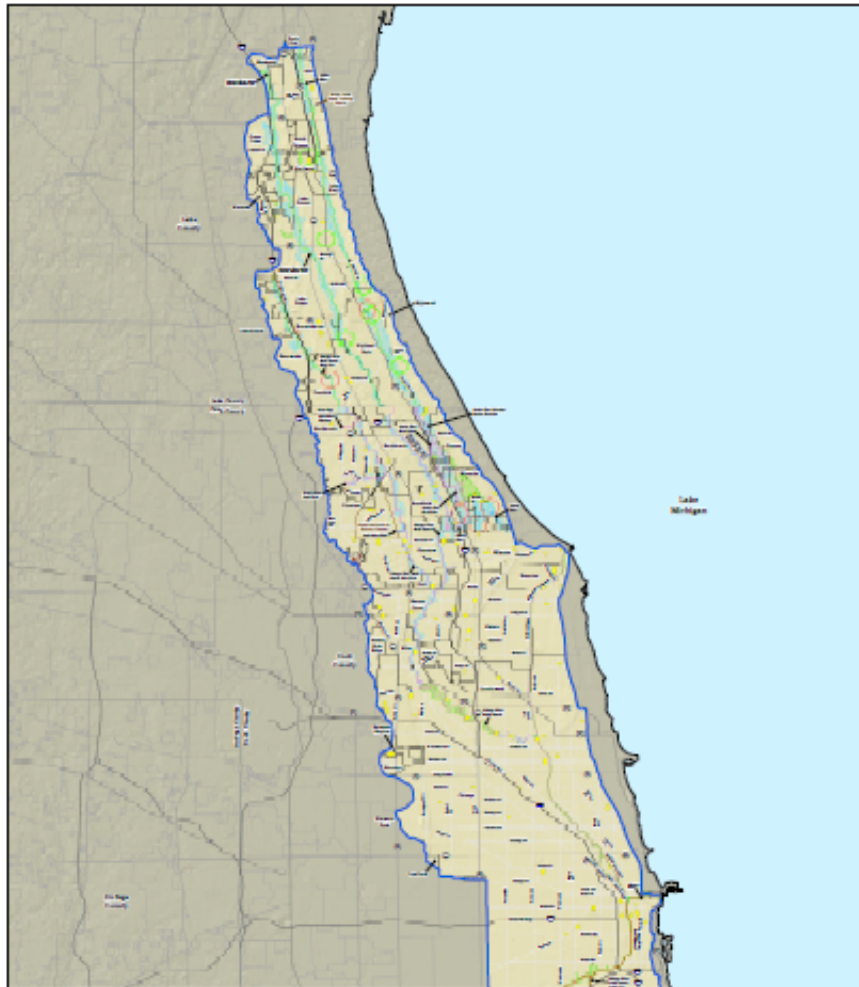
# Comment Form

Chicago River HUC 8 Watershed Comment Form # 45	
<b>Please, provide the following information:</b>	
Name:	Date:
Title:	
Community/County:	
E-mail:	Phone:
<p>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.</p>	
<b>Check Comment Subject:</b>	
<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
<b>Comment Marked on:</b>	
Discovery Map # _____	DFIRM Panel # _____ Other _____
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	
<b>Mitigation Action - To enter the mitigation action please complete the back of this form.</b>	
<p>Continue on back side if necessary. Please return form to: Pat Hubbert, Illinois State Water Survey, 2204 Chaffin Drive, MC-674 Champaign, IL 61820 or <a href="mailto:phubbert@illinois.edu">phubbert@illinois.edu</a>.</p>	

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. <ul style="list-style-type: none"> <li>a. A Risk MAP product helped ID the action</li> <li>b. Action was identified during a Risk MAP meeting</li> <li>c. Action was identified during a Risk MAP communication</li> <li>d. A Risk MAP resource helped drive the action.</li> </ul>	
5. Mitigation Action Source (Circle one or more) <ul style="list-style-type: none"> <li>a. Capital Improvement Plan</li> <li>b. Comprehensive Land use Plan</li> <li>c. HMA Database</li> <li>d. Local Natural Hazard Mitigation Plan</li> <li>e. Risk MAP Process</li> <li>f. State Risk Management Team (Silver Jackets)</li> <li>g. Other</li> </ul>	
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 - _____	
_____	
_____	
<p>Continue on back side if necessary. Please return form to: Pat Hubbert, Illinois State Water Survey, 2204 Chaffin Drive, MC-674 Champaign, IL 61820 or <a href="mailto:phubbert@illinois.edu">phubbert@illinois.edu</a>.</p>	

# Chicago Watershed Discovery Maps



# Group Breakout Sessions





# Marked Discovery Map and Comment Form

## Chicago River HUC 8 Watershed Comment Form # 45

Please provide the following information:		Date: 11/13/13
Name: PATRICK GLENN	Title: IMAGE ENGINEER	
Community/County: RIVERWOODS, LAKE		
E-mail: pgle@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

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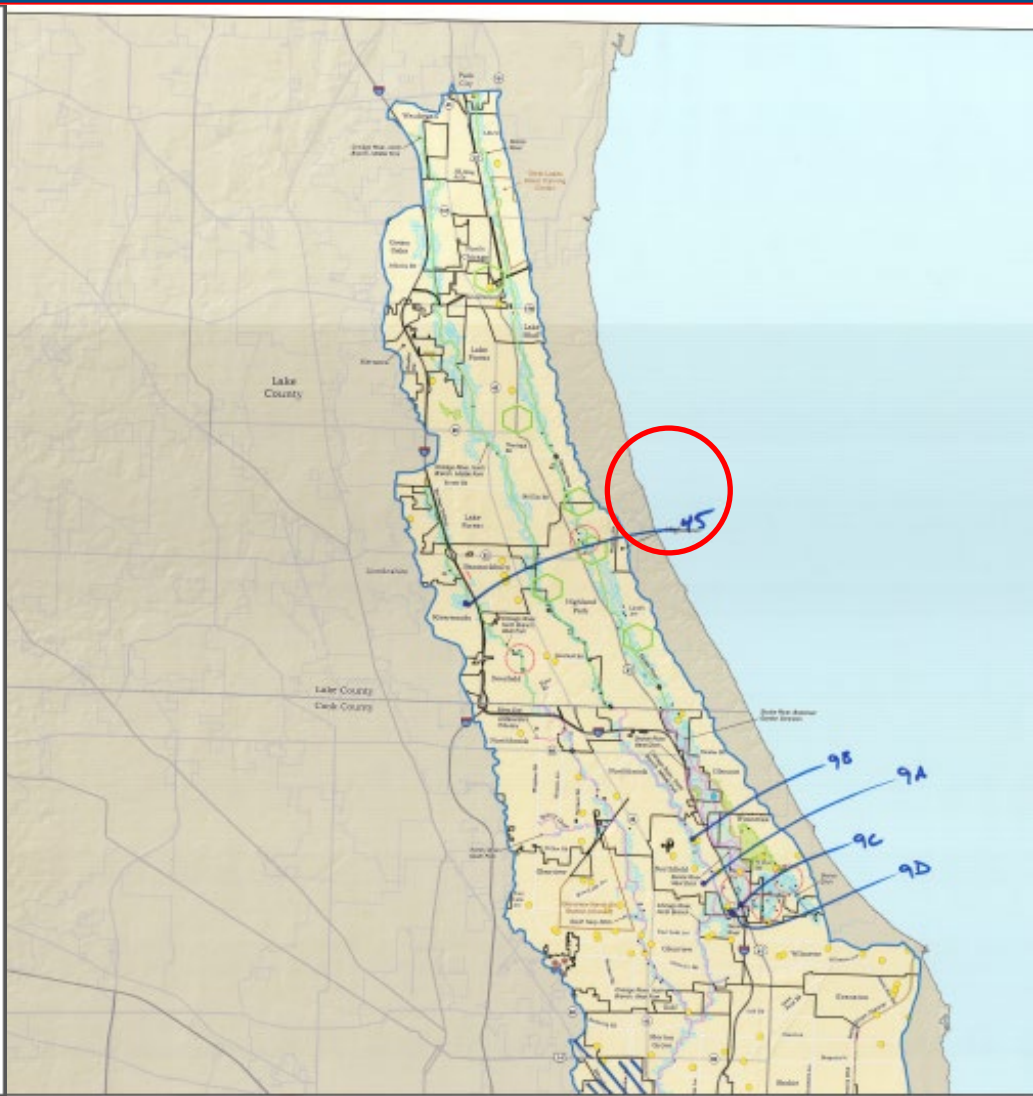
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Mitigation Action - To enter the mitigation action please complete the back of this form.

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](mailto: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.



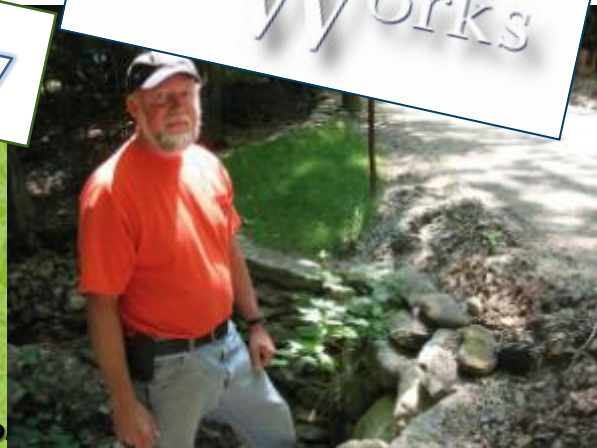
# Building Community Resilience

- 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



# FEMA's Toolbox



**Publications**

Community Rating System  
 Fact Sheet

Recent Waters Flood Insurance Reform Act of 2012

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

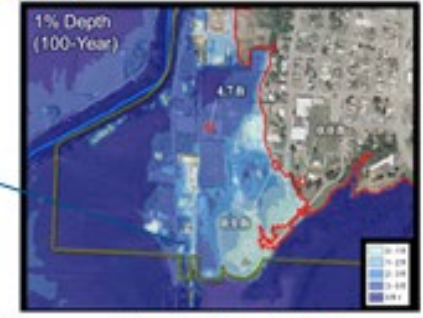
Lake County All Natural Hazards Mitigation Plan  
 Lake County, Illinois  
 June 2012



**Hazard Mitigation Plans**

**Mitigation Action Tracker**

**Depth Grids**



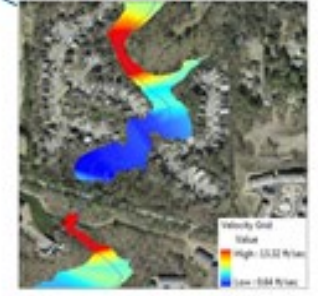
**Changes Since Last FIRM**



**Percent 30-Year Grids**



**Velocity Grids**



**Discovery Products**

ILLINOIS FLOODMAPS ONLINE

Upper Sangamon River Watershed Discovery

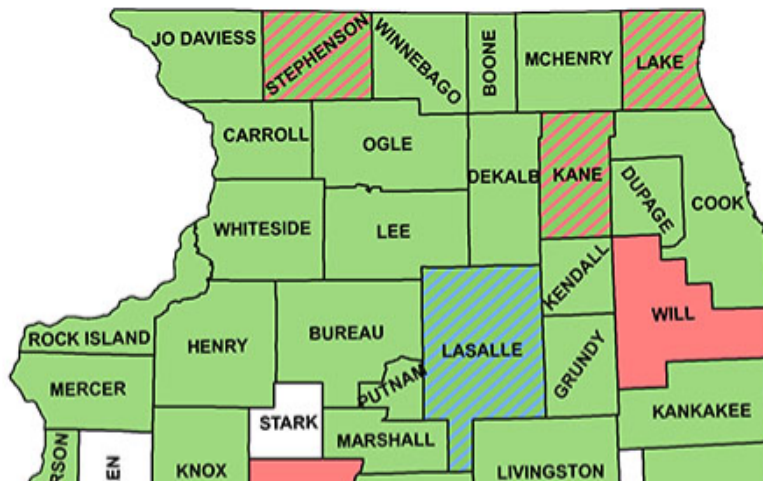


## Outreach

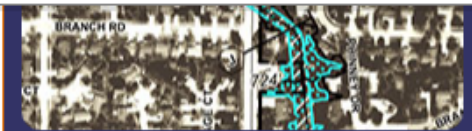


### FEMA Flood Insurance Rate Maps, Studies, and Database Products

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)

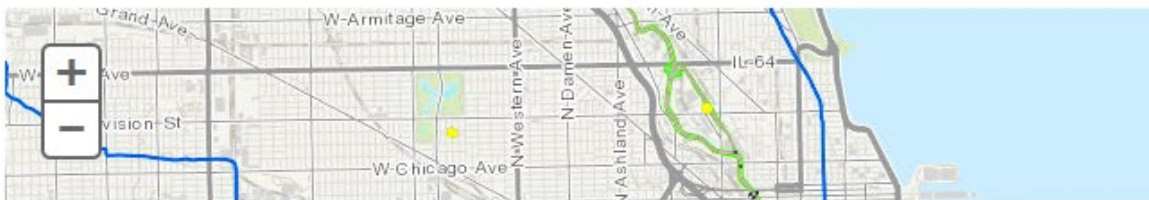
# Chicago River Watershed Database



## Chicago River Watershed Discovery

FEMA Risk MAP Discovery meetings were held in November 2013 and Discovery Follow-Up meetings will be held on May 14 and 15, 2014. At these meetings ISWS staff will present FEMA's Discovery Database and Mitigation Action Tracker populated with information provided by communities throughout the watershed.

- [Draft Discovery Report for Chicago River Watershed \(PDF\)](#)
- [Draft Agenda for Chicago River Watershed Discovery Meetings \(PDF\)](#)
- [Draft Discovery Map for Chicago River Watershed, North \(PDF\)](#)
- [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

# Mitigation Action Tracker

## Search for a Place

E.g. Boulder County

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

[Get communities in current view](#)

## States and Regions

Region V

## County

Select a County

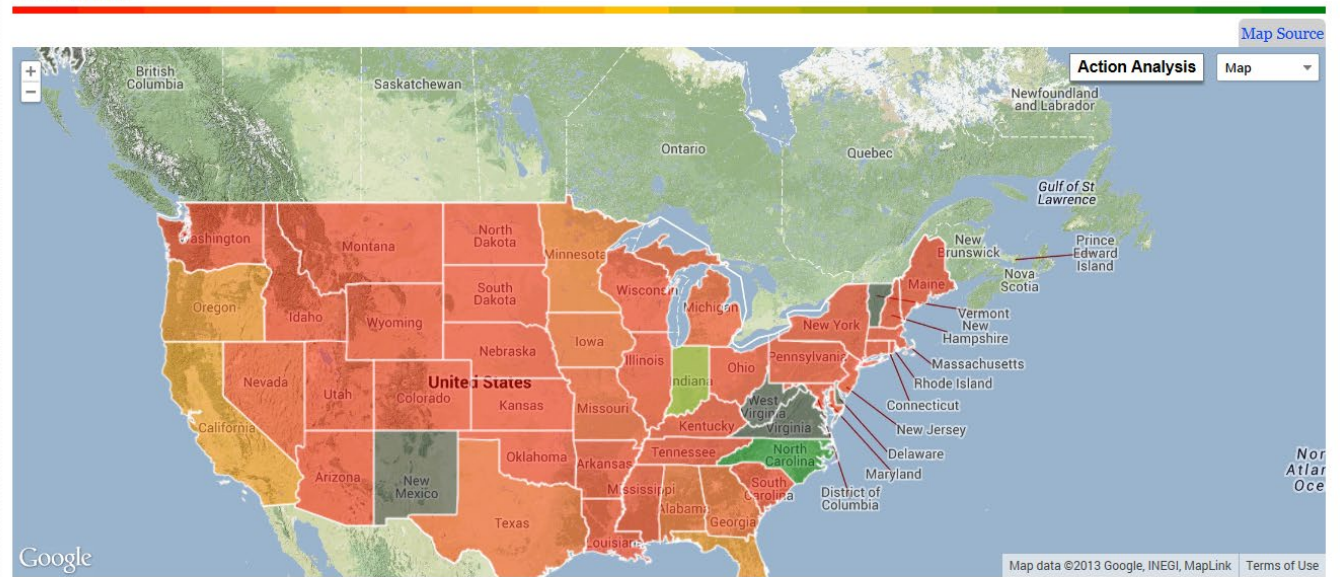
## Watershed Sort by: Code Name

Select a Watershed

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

[+ Add Mitigation Action](#)

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](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.

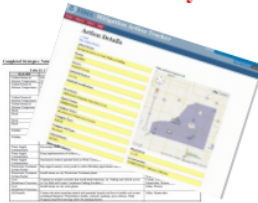
## Mitigation Action Tracker and Your Community?

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](http://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](mailto: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](http://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 three main sections: 'Create a New Account', 'Log In', and a search area. The 'Create a New Account' section has a header with the FEMA logo and 'FEMA Mitigation Action Tracker' and a 'Log In' button. The 'Log In' section also features the FEMA logo and 'FEMA Mitigation Action Tracker' header, with a 'Log In' button and a 'Welcome mjr@illinois.edu!' message. Below the 'Log In' section, there is a search area with a 'Search for a Place' input field and a 'Mitigation Action Form' button. The main content area shows a map of the United States with various filters and options. The map is titled 'United States' and includes state names. There are also buttons for 'Action Analysis' and 'Map Source'. The bottom of the page features a logo for the 'ILLINOIS STATE WATER SURVEY PRAIRIE RESEARCH INSTITUTE' and a page number '20'.

**FEMA Mitigation Action Tracker** Log In

Home Charts Reports Admin Ideas Help

### Create a New Account

**FEMA Mitigation Action Tracker** Log In

Home Charts Reports Admin Ideas Help

### Log In

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

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

Filter: National

**States and Regions**  
National

**County**  
Select a County

**Watershed** sort by: Code Name  
Select a Watershed

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

+ Add Mitigation Action

Map Source

Action Analysis Map

Google

Map data ©2014 Google, INEGI Terms of Use

# Pull-down menu to navigate to State and Region and then to a County or a Watershed. Palos Hills

**FEMA Mitigation Action Tracker**

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

Home Charts Reports Admin Ideas Help

Search for a Place  
E.g. Smaller County

Search for a place on the map

Hide Menu Hide Advanced Search Options

Get communities in current view

Filter: National

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 *	122,427	7
<input type="checkbox"/> ALSIP, VILLAGE OF	19,369	0
<input type="checkbox"/> BLUE ISLAND, CITY OF	22,447	0
<input type="checkbox"/> BRIDGEVIEW, VILLAGE OF	16,189	1
<input type="checkbox"/> BURBANK, CITY OF	28,953	0

+ Add Mitigation Action

Mitigation Action Data

Show All Show My Entries Show Approved Entries

Show 10 entries

Showing 1 to 4 of 4 entries (filtered from 5,561 total entries)

Search: Palos Hills

Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source
03	Illinois	Palos Hills, City Of	Overlapping of Lucas Ditch Extension, W...	17,378	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
03	Illinois	Palos Hills, City Of	Lucas Ditch Dredge Project	17,378	Flood	Structure and Infrastructure Projects (Other)	Identified	RiskMAP Process
03	Illinois	Palos Hills, City Of	Levee Project	17,378	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
03	Illinois	Palos Hills, City Of	Erosion Control Project	17,378	Flood	Natural Systems (Soil Stabilization or Erosion Control)	Identified	Other

# Palos Hills Detail sheet for: *Overtopping of Lucas Ditch extension W 99<sup>th</sup> Pl to 102<sup>nd</sup> St flooded*

## Action Details

[← Back](#)

**Action Name:**  
 Overtopping of Lucas Ditch Extension, W 99th Pl to 102nd Street flooded.

**Status:**  
 Identified

**Influenced by the RiskMAP Process:**  
 Yes

**Source:**  
 RiskMAP Process

**RiskMAP Justification:**  
 Action was CD-6 during a RiskMAP meeting

**Plan Name:**

**Hazard Name:**  
 Flood

**Category Name:**  
 Structure and Infrastructure Projects

**Category Type:**  
 Flood Control/Management

**Category Sub-Type:**  
 Culvert Expansion/Modification

**Contact Title:**  
 Commissioner of Public Works

**Contact Name:**  
 Dave Wladky

**Responsible Agency:**  
 Other

**Estimated Cost (Min):**  
 \$0.000

**Estimated Cost (Max):**  
 \$0.000

**Estimated Duration (Min):**  
 0 Years

**Estimated Duration (Max):**  
 1 Years

**Primary Funding Source:**  
 Other

**Funding Source Type:**

**Additional Details:**  
 Lucas Ditch Extension can't flow through water to Stony Creek and the CCHD main drain under Roberts Road is under capacity. During heavy rain across the area of 99th Pl to 102nd Roberts Road to 78th Avenue floods making streets flood. 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.

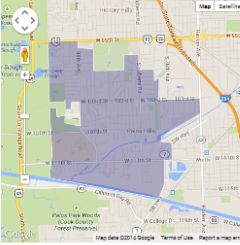
**Precise Location:**  
 N/A

**Created By:**  
 mj@illinois.edu 11/3/2015  
 Palos Hills, Ill.  
 Engineering Assistant  
 Illinois State Water Survey

**Approved:**  
 Yes

**Disapproval Reason:**

**This action is Approved**



**Population:**  
 15,315

**Communities:**  
 PALOS HILLS CITY OF (170143), 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 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 in 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](#)

# Palos Heights:

**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

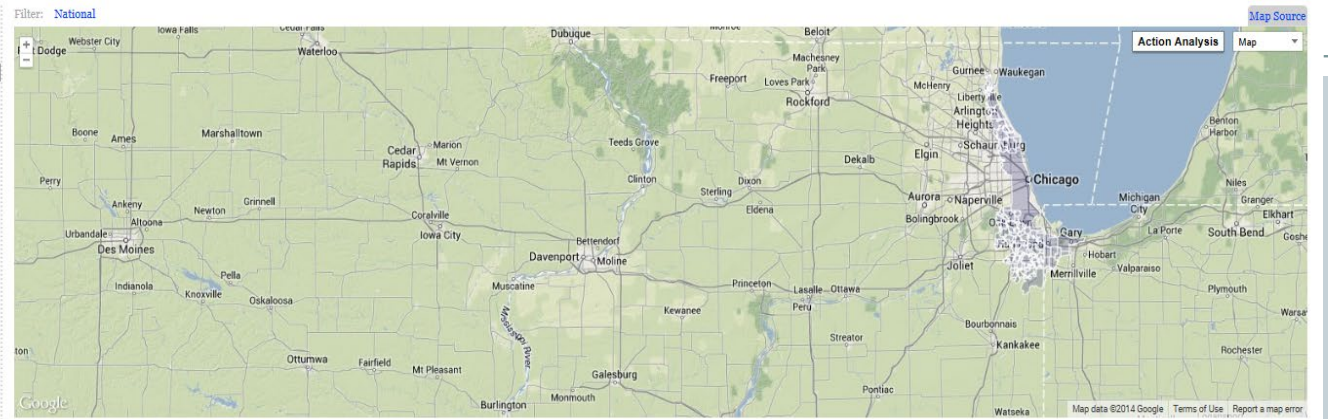
**Watershed** Sort by: Code Name

07120003: Chicago

Select All | Deselect All | Population selected: 0

Community	Population (2010)	Approved Actions
<input type="checkbox"/> COOK COUNTY *	132,427	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

[+ Add Mitigation Action](#)



**Mitigation Action Data**

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

Show 10 entries

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

Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source	
<a href="#">More Info</a>	05	Illinois	Palos Heights, City Of	Street Closures Due to Flooding	12,564	Flood	Structure and Infrastructure Projects (Flood Control/Management)	In Progress	Other
<a href="#">More Info</a>	05	Illinois	Palos Heights, City Of	Streamflow Construction	12,564	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Scoped	Other

Search: Palos Heights

[First](#) [Previous](#) [1](#) [Next](#) [Last](#)

# Palos Heights Detail sheet for: *Stream flow constriction*

## Action Details

[<< Back](#)

**Action Name:**  
Streamflow Constriction

**Status:**  
Scopd

**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:**  
Drainage Improvements

**Contact Title:**  
Director of Public Works

**Contact Name:**  
Scott Smith

**Responsible Agency:**  
Public Works

**Estimated Cost (Min):**  
\$0

**Estimated Cost (Max):**  
\$100,000

**Estimated Duration (Min):**  
0 Years

**Estimated Duration (Max):**  
1 Years

**Primary Funding Source:**  
Other

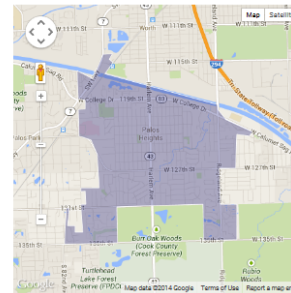
**Funding Source Type:**

**Additional Details:**  
Streamflow constriction at 133st and Cypress. Co-operative study with MWRD. Estimated cost, duration, and funding source not determined at this time by the community.

**Precise Location:**  
N/A

**Created By:**  
hubbart@illinois.edu\*9/9/2014  
Hubbart, Pat  
Outreach Coordinator  
Illinois State Water Survey, U of I, Champaign

This action is **Approved**



**Population:**  
12,264

**Communities:**  
PALOS HEIGHTS, CITY OF (170142), ILLINOIS

**Name of Person who Identified Action:**  
Scott Smith

**Title of Person who Identified Action:**  
Director of Public Works

**Date when Action was Identified:**  
11/14/2013

### Action Flags

Flags added here serve a note 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](#)

Approved:



# Chicago:

**FEMA Mitigation Action Tracker**

 Welcome [mjc@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 *	132,427	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"/> BURNING, CITY OF	28,958	0

+ Add Mitigation Action

Filter: National

Action Analysis | Map | Source

### Mitigation Action Data

[Show All](#) [Show My Entries](#) [Show Approved Entries](#)  
 Show 10 entries

Showing 1 to 6 of 6 entries (filtered from 5,805 total entries)

Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source
<a href="#">More Info</a>	09	Illinois	Chicago, City Of	2,694,988	Flood	Local Planning and Regulations (Zoning & Ordinances)	Identified	Other
<a href="#">More Info</a>	09	Illinois	Chicago, City Of	2,694,988	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	Other
<a href="#">More Info</a>	09	Illinois	Chicago, City Of	2,694,988	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	Local Natural Hazard Mitigation Plan
<a href="#">More Info</a> <a href="#">Edit</a>	09	Illinois	Prospect Heights, City Of	16,490	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
<a href="#">More Info</a>	09	Illinois	Chicago, City Of	2,694,988	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process
<a href="#">More Info</a>	09	Illinois	Chicago, City Of	2,694,988	Flood	Structure and Infrastructure Projects (Flood Control/Management)	Identified	RiskMAP Process

# Chicago Detail sheet for: *Basement flooding*

## Action Details

<< Back

**Action Name:**  
Basement Flooding

**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:**  
Drainage Improvements

**Contact Title:**  
Lead Stormwater Reviewer

**Contact Name:**  
Andrew Billings

**Responsible Agency:**  
Other

**Estimated Cost (Min):**  
\$0

**Estimated Cost (Max):**  
\$100,000

**Estimated Duration (Min):**  
1 Years

**Estimated Duration (Max):**  
2 Years

**Primary Funding Source:**  
Other

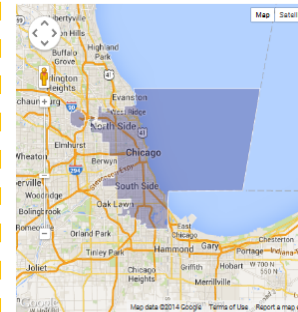
**Funding Source Type:**

**Additional Details:**  
Significant basement flooding occurs throughout the City of Chicago due to sewer backups from the combined sewer system. Basement flooding due to overland flooding, groundwater seepage, poor local drainage, and mechanical pump failures are widespread as well. Responsible agency, estimated cost, duration, and primary funding source have not been determined by the city at this time.

**Precise Location:**  
N/A

**Created By:**  
hubbart@illinois.edu-4/9/2014  
Hubbart, Pat

This action is Approved



**Population:**  
2,454,288

**Communities:**  
CHICAGO, CITY OF (30004), ILLINOIS

**Name of Person who Identified Action:**  
Andrew Billings

**Title of Person who Identified Action:**  
Lead Stormwater Reviewer

**Date when Action was Identified:**  
11/14/2013

### Action Flags

Flags added here serve a note 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](#)

# Unincorporated Will County:

Mitigation Action Form

**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

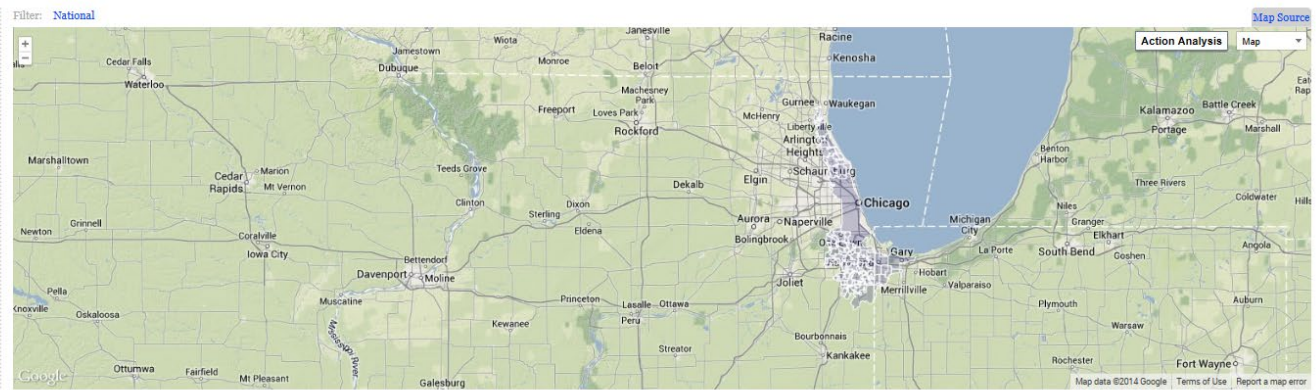
**States and Regions**  
 Illinois

**County**  
 Select a County

**Watershed** sort by: Code Name  
 07120003: Chicago

- RIVERDALE, VILLAGE OF 18,549 0
- ROBBINS, VILLAGE OF 5,363 0
- SAUK VILLAGE, VILLAGE OF 10,408 1
- SOUTH CHICAGO HEIGHTS, VILLAGE OF 4,109 0
- SOUTH HOLLAND, VILLAGE OF 22,131 0
- THORNTON, VILLAGE OF 2,306 0

+ Add Mitigation Action



## Mitigation Action Data

Show All Show My Entries Show Approved Entries

Show 10 entries

Showing 1 to 4 of 4 entries (filtered from 5,801 total entries)

Search: Will County

First Previous 1 Next Last

	Region	State	Community	Action Name	Population	Hazard	Category (Type)	Status	Source
<a href="#">More Info</a> <a href="#">Edit</a>	05	Illinois	Will County	Overtopped road Tributary to Prairie Cr...	173,405	Flood	Structure and Infrastructure Projects (Flood Control, Management)	Identified	RiskMAP Process
<a href="#">More Info</a> <a href="#">Edit</a>	05	Illinois	Will County	Overtopping of Prairie Creek at South Ce...	173,405	Flood	Structure and Infrastructure Projects (Flood Control, Management)	Identified	RiskMAP Process
<a href="#">More Info</a> <a href="#">Edit</a>	05	Illinois	Will County	Overtopping of Unnamed Tributary to Hick...	173,405	Flood	Structure and Infrastructure Projects (Flood Control, Management)	Identified	RiskMAP Process
<a href="#">More Info</a> <a href="#">Edit</a>	05	Illinois	Will County	Flooding at upper reaches Tributary to P...	173,405	Flood	Structure and Infrastructure Projects (Flood Control, Management)	Identified	RiskMAP Process

# Unincorporated Will County: Overtopping of Prairie Creek at South Center Rd\West Kruse Rd

## Action Details

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

**Action Name:**  
 Overtopping of Prairie Creek at South Center Rd\West Kruse Rd

**Status:**  
 Identified

**Influenced by the RiskMAP Process:**  
 Yes

**Source:**  
 RiskMAP Process

**RiskMAP Justification:**

**Plan Name:**

**Hazard Name:**  
 Flood

**Category Name:**  
 Structure and Infrastructure Projects

**Category Type:**  
 Flood Control/Management

**Category SubType:**  
 Culvert Expansion/Modification

**Contact Title:**  
 SWCD Treasurer

**Contact Name:**  
 Cathy Roelke

**Responsible Agency:**  
 Other

**Estimated Cost (Min):**  
 (\$0.000)

**Estimated Cost (Max):**  
 (\$0.000)

**Estimated Duration (Min):**  
 0 Years

**Estimated Duration (Max):**  
 1 Years

**Primary Funding Source:**  
 Other

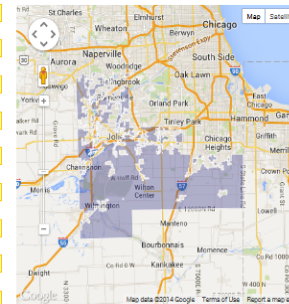
**Funding Source Type:**

**Additional Details:**  
 Overtopped Road. 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:**  
 S/A

**Created By:**  
 mjrc@illinois.edu-10/21/2012  
 RiskMapper: N/A

This action is **Approved**



**Population:**  
 173,495

**Communities:**  
 WILL COUNTY \* (180666), 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 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 usernames 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](#)

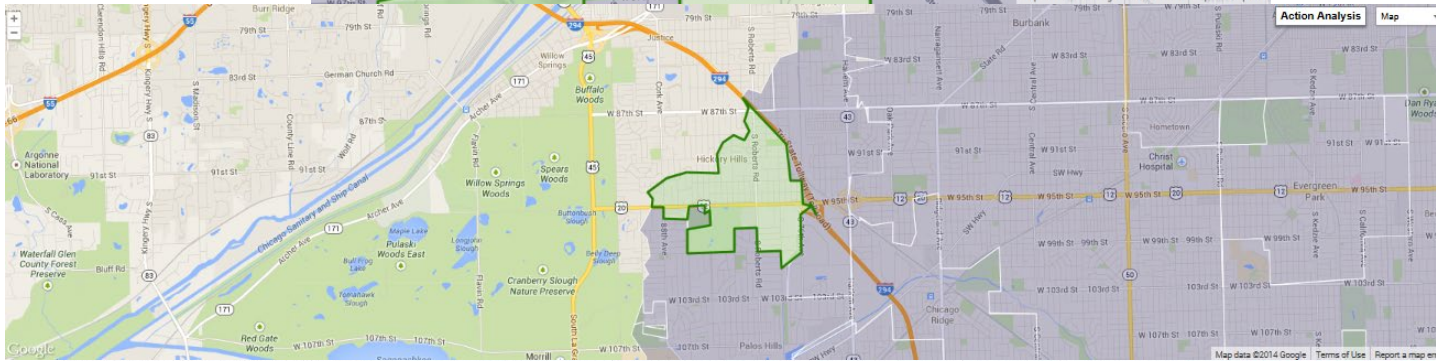
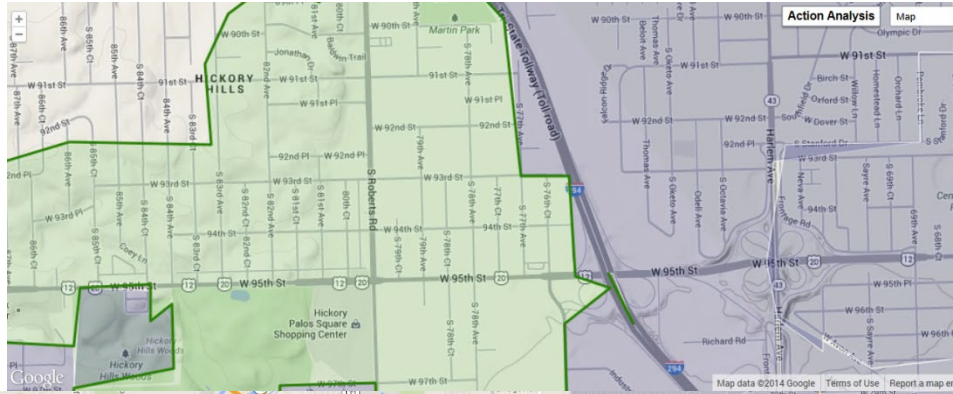
Show  entries Search:

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

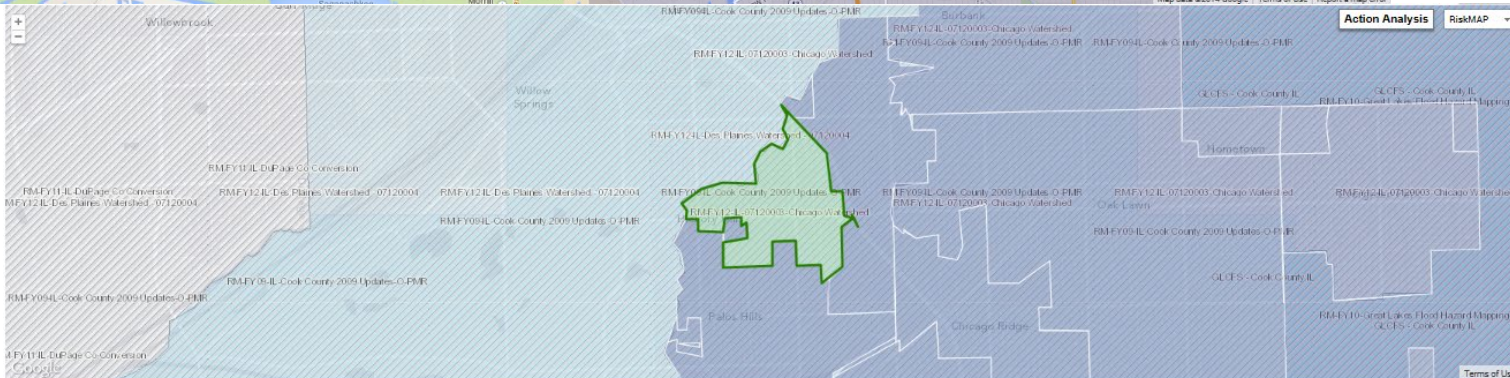
Action	Region	State	Community	Action Name	Hazard	Category (Type)	Status	Source	Created
<input type="checkbox"/> <a href="#">More Info</a> <a href="#">Edit</a>	05	Illinois	Northbrook, Village Of	Critical Facilities Identification	Multiple Hazards	Local Planning and Regulations (Other)	Identified	RiskMAP Process	hubbartt@illinois.edu 5/5/2014
<input type="checkbox"/> <a href="#">More Info</a> <a href="#">Edit</a>	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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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

**Action Analysis** Map

**pdf**

# Data Output: Mitigation Action Charts



## FEMA Mitigation Action Tracker

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Reports
Admin
Ideas
Help
Flags

**Search for a Place**

E.g. Boulder County

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

Get communities

**States and Regions**

Illinois

**County**

Select a County

**Watershed** Sort by: C

Select a Watershed

Select All | Deselect All | P

Community

ILLINOIS

[+ Add Mitigation Action](#)

**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

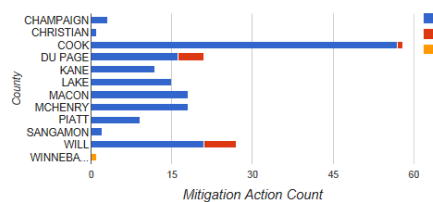
**Currently, these charts are being filtered to the following level:**

**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.

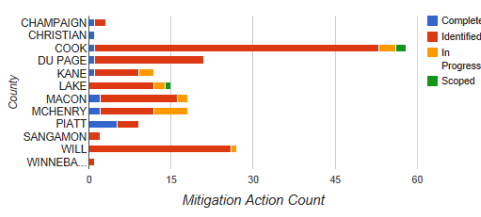
**Filtered on Illinois**



**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.

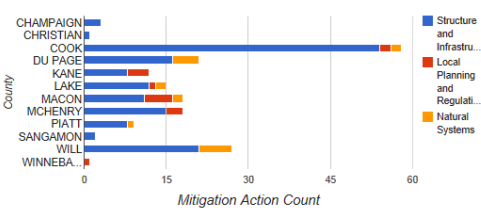
**Filtered on Illinois**



**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.

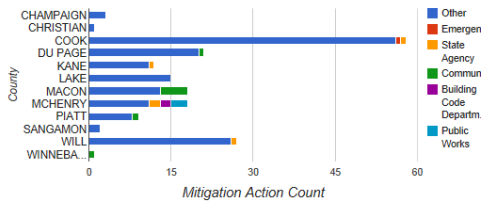
**Filtered on Illinois**



**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.

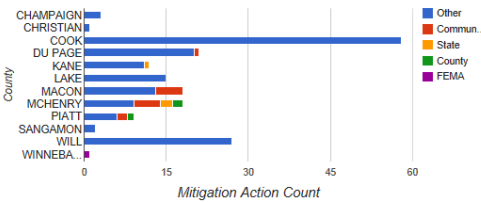
**Filtered on Illinois**




**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**





32



# 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 - 1				
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) <sup>Required</sup>

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 <sup>Required</sup>

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

#### 2. Email Address <sup>Required</sup>

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

#### 3. Your Title and Organization <sup>Required</sup>

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 <sup>Required</sup>

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 <sup>Required</sup>

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 <sup>Required if Applicable</sup>

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

Type:

#### 12. Mitigation Action Commitment <sup>Required if Applicable</sup>

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 <sup>Required</sup>

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.

## 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  
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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
- BSM
- 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 action idea cards. Each card has a title, a small icon, and a brief description. The cards are arranged in three rows: the first row has 7 cards, the second row has 7 cards, and the third row has 3 cards. The cards are: Drought, Earthquake, Erosion, Flood, Hail, Landslide, Lightning, Wildfire, Tornado, Tsunami, Storm Surge, Subsidence, Extreme Temperatures, Sea Level Rise, Severe Wind, Multiple Hazards, and Severe Winter Weather. The 'Mitigation Action Ideas' card is highlighted in yellow. The website also features a search bar, a sidebar with filters for 'States', 'County', and 'Watersh', and a footer with the Illinois State Water Survey logo.

**FEMA Mitigation Action Tracker**

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Search for  
 E.g. Boulder  
 [Mitigation Action Form](#)  
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**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**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ILLINOIS STATE WATER SURVEY  
 PRAIRIE RESEARCH INSTITUTE



# 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  
 • Floo 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 floo  
 • 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 C...

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](mailto:hubbartt@illinois.edu)**  
**Mary Richardson: [mjr@illinois.edu](mailto: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:



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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  
07120003: Chicago

HARKVEY, 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** <sup>Req</sup>  
Please enter the Mitigation Activity Name

**Mitigation Action Status** <sup>Req</sup>  
Please indicate the current status of the Mitigation Action

Identified  
 Scoped  
 In Progress  
 Completed

**Hazard Type** <sup>Req</sup>  
Select the main type of hazard affected by this Mitigation Action

Action

Flood  
 Hall  
 Hurricane Wind  
 Landslide  
 Lightning

**Mitigation Activity Precise Location**  
Please enter a specific Latitude and Longitude

Lat  Longitude

**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** <sup>Req</sup>  
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

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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	Counties
<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
<a href="#">More Info</a>	05	Illinois	Winnemago County	Update Winnemago County HM Plan	67,911	Other	Identified	RiskMAP Process
<a href="#">More Info</a>	05	Illinois	McHenry, City Of	Lakeland Park Drainage Ditch Dredge Proj...	23,224	Flood	Identified	RiskMAP Process

No records to display

## New Mitigation Action

### Mitigation Action Form

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

#### Responsible Agency<sup>\*Req</sup>

Please indicate the Agency that will be responsible for this

Mitigation Action

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

#### Mitigation Category<sup>\*Req</sup>

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 -

#### Estimated Duration<sup>\*Req</sup>

Please select the approximate duration for the project.

- Select -

#### Estimated Cost

Enter the estimated cost for the project

- Select -

#### Primary Funding Source<sup>\*Req</sup>

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

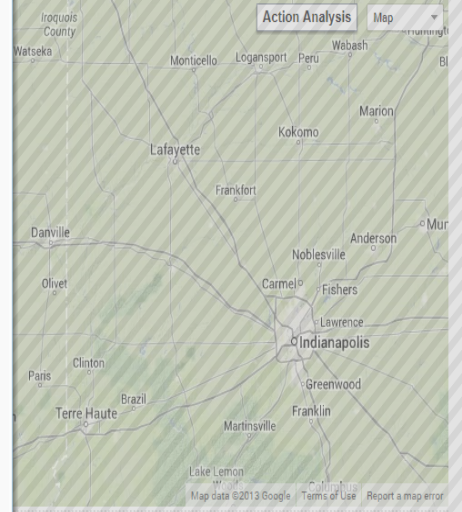
If you would like to enter additional information, please fill in

the text box below.

Additional Details

[Back](#) [Review](#) [Cancel](#)

## Mitigation Action Form



# 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

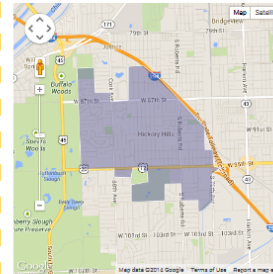
**Funding Source Type:**

**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 9th 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 guess-estimated 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 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](#)

# Admin tab:- For edits and updates to entry



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