



# Map Mod to Risk MAP in Illinois

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# Topics

- Background on FEMA partnership in Illinois
- FEMA funded studies in progress
- Risk Map translated
- LOMR delegation (MT-2 review)


# Illinois CTP - background

- 2004 Cooperating Technical Partnership (CTP) agreement between FEMA and the Illinois Dept. of Natural Resources (Office of Water Resources and Illinois State Water Survey)
- 2004-2008 Map Mod; IDNR managed Map Modernization from Scoping to Effective Maps (35 staff)
- By 2011 80% of Illinois' counties will have DFIRMs
- Key point is that in Illinois, the DFIRM production, from Scoping to ordinance adoption was done in house building state capability.

Many Lessons learned, but two that stand out:

Map Modernization provided the opportunity to leverage state and local knowledge to get the best products for Illinois, but this only happened because people were engaged.

Repeated, continuous communication with FEMA staff and local government representatives is essential to a smooth process that meets real needs.



# Illinois CTP – next steps

- July 18, 2008 ISWS (now part of the University of Illinois) became a CTP
- 2009 (transition year) ISWS contracted with FEMA on flood analyses and mapping projects
- 2009 ISWS accepted for LOMR Delegation Program (aka MT-2 Review) to begin fall of 2010



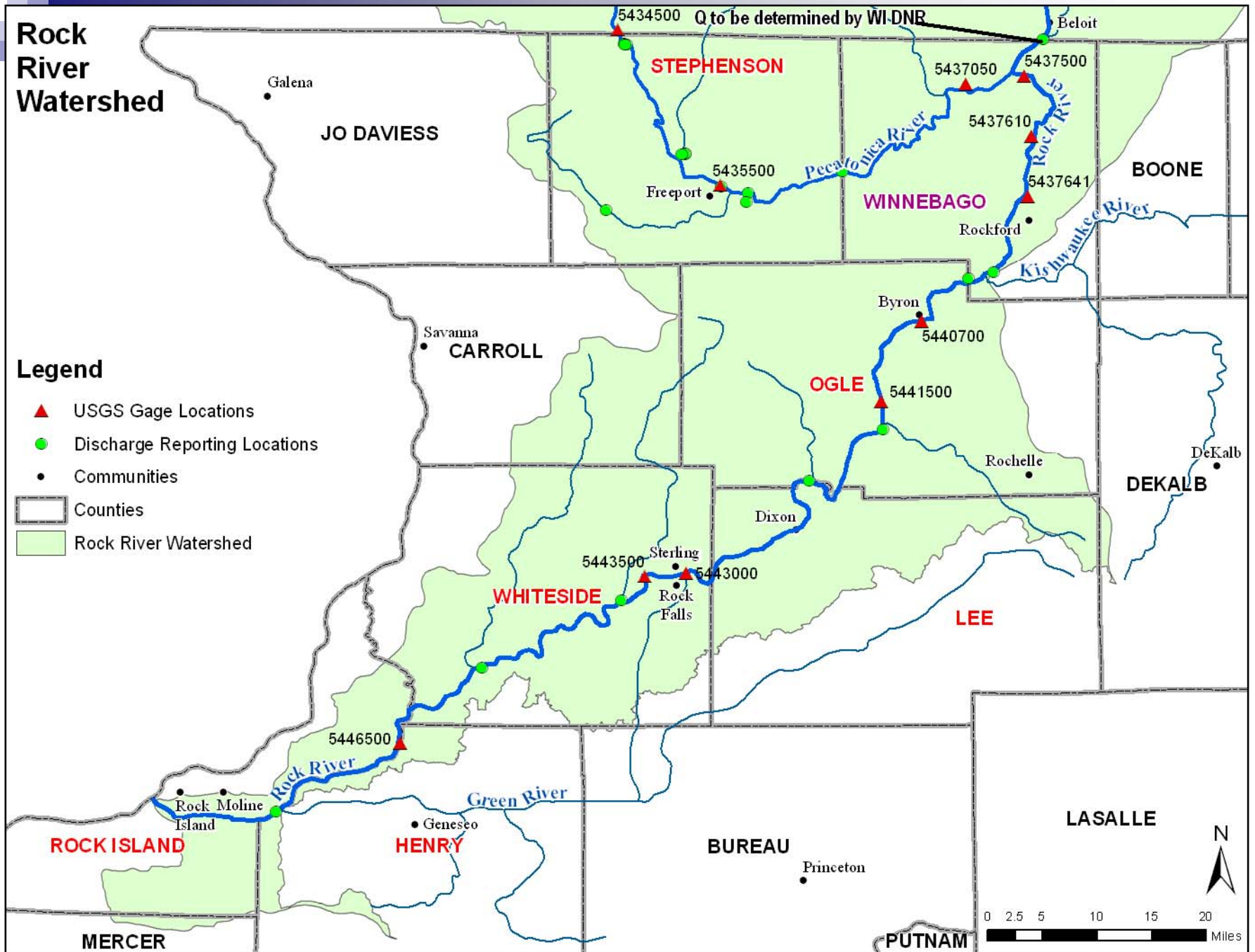
# FFY 2009 Transition Year Projects

- Rock River Watershed study and map update
- Stephenson County, Pecatonica River study
- Physical Map Revisions (PMRs) in Cook, Lake, and Kane Counties
- CNMS database development

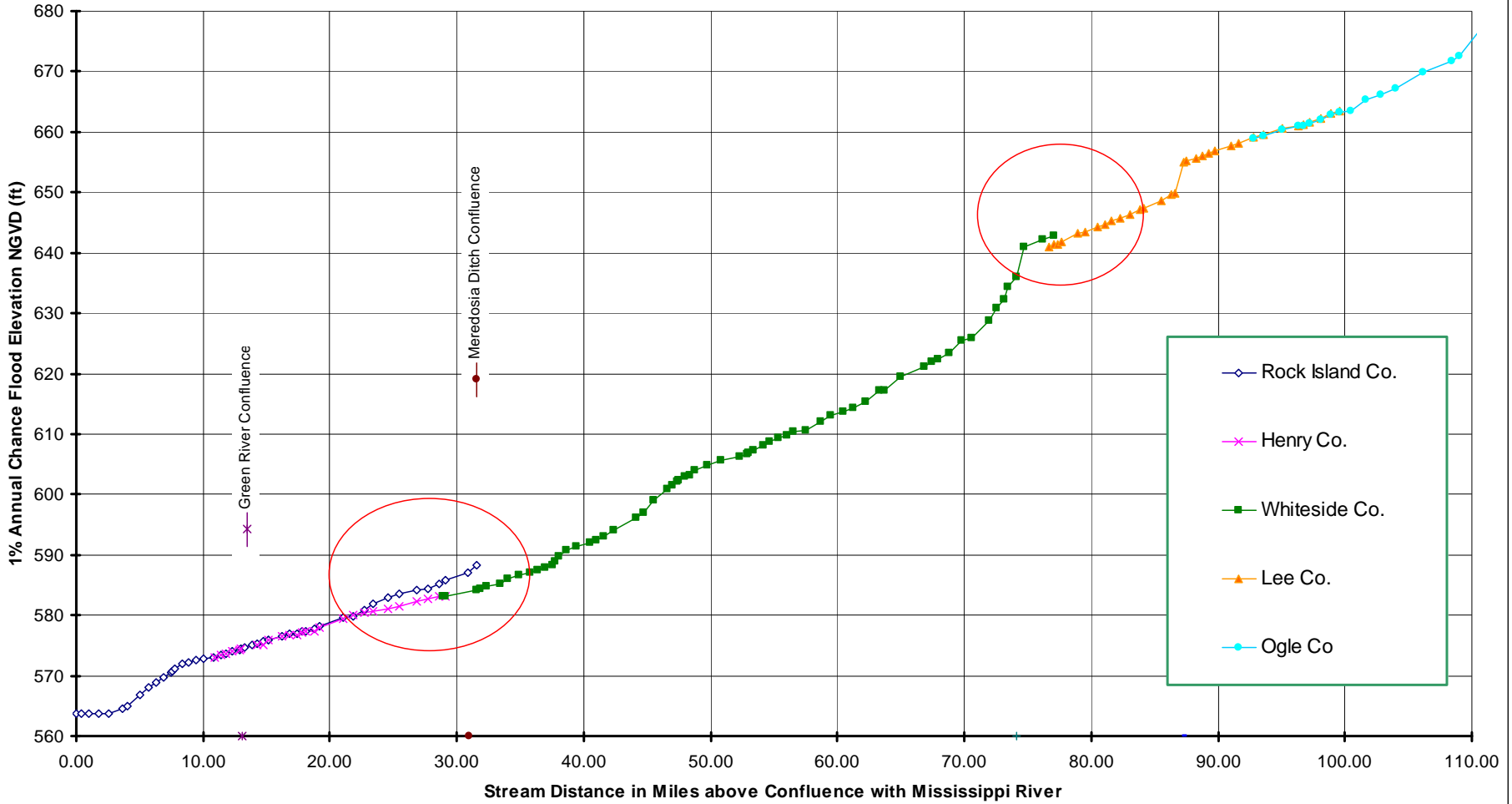
# Rock River Watershed

## Legend

- ▲ USGS Gage Locations
- Discharge Reporting Locations
- Communities
- Counties
- Rock River Watershed



# Rock River Effective FIS Flood Profiles



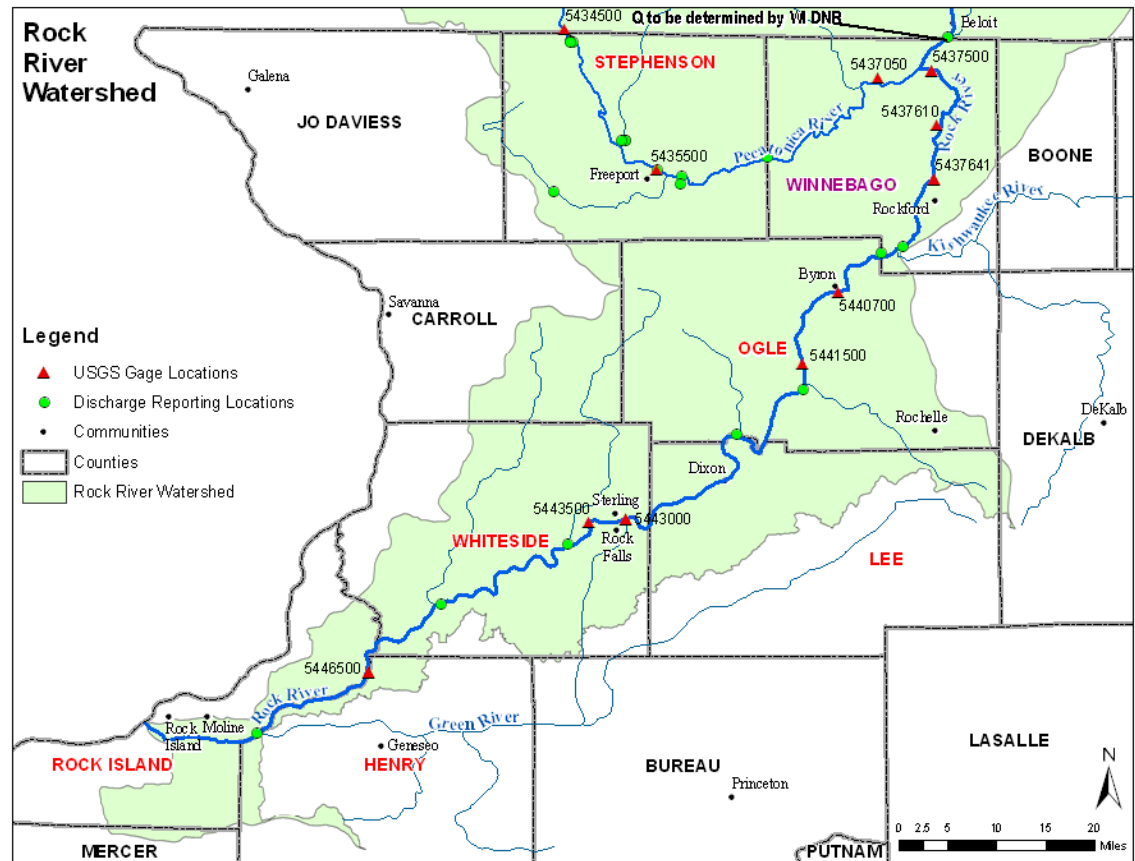
# Rock River Effective Studies

- Hydrology based on gaging station analyses from reports published between 1969 and 1978.
- Hydraulic Model dates (1970 to 1987)
  - Rock Island 1987
  - Whiteside 1985
  - Henry 1970s
  - Lee 1985
  - Ogle 1985
  - Winnebago 1976
- One new bridge, Six bridge replacements



# Rock River Watershed Study, 2009

- Hydrology for the watershed; coordinate with Wisconsin for discharges
- Hydraulics; partner with USACE Rock Island District
- IDNR/OWR survey and bridge data
- Pecatonica River in Stephenson Co – community needs
- New Lidar 2009-2010 (IDOT)
- FFY2009 funding, PMRs for 6 counties, 86 panels
- Winnebago Co. (incl City of Rockford) 2010





# PMRs: (no longer a 4 letter acronym)

A Physical Map Revision (PMR) is an “oversized LOMR”  
Data is submitted to FEMA that covers a large area; requiring revision  
of multiple panels that must be distributed for public review prior to  
adoption.

## ***PAST***

Cartographic costs high

Government Printing Office process was time consuming and costly

Due to lack of funds the updates were not process in a timely manner

## ***NOW***

DFIRMs allow ready integration of digital study products

As of Oct 1, 2009 reduce paper map production reduced out of date  
printing process, delays, and costs





# CNMS: Coordinated Needs Management Strategy Database

- A place to store information about where flood studies and maps need correcting or updating
- The actual database has a spatial component to store location and other geographic information (stream reach)
- The basic structure is two containers; one to store information about why and where effective studies are “broken”; the other to record community concerns and requests
- All information stored can be displayed together because they are geo-referenced

# CNMS database - add up the deficiencies

NEED = study not valid

Hydrology out of date;  
changes to watershed

Hydraulics out of date:  
new bridges, scour

Significant number of  
repetitive losses  
outside of SFHA

New topography

.....etc


REQUEST = validity of  
study not known

Cartographic or flood  
data change requested

Cost share options

SFHA linked to project  
identified in Mitigation  
Plan

.....etc



# Risk MAP (translated)

- Watershed scale H&H studies
- CNMS – documenting outdated analyses and community requests
- HAZUS-MH for baseline risk assessment
- Statewide inventory of high resolution topographic data
- Sequencing projects on the basis of need, risk, and availability good topographic data
- Planning multiple year projects
- Outreach, communication, and consistency; key elements for success



# ISWS – LOMR Delegation

- FEMA has accepted the ISWS-CTP for the LOMR Delegation Program
- LOMR Delegation = review of MT-2 applications
- Does NOT include LOMAs or LOMR-F nor levee accreditation reviews
- MT-2 reviews will be performed by the ISWS  
Training planned for Spring 2010
- Transition in Fall 2010

# Summary

- Risk MAP in its vision has the potential to bring about better integration of information for reduction of flood losses
- Good to be moving toward an objective, quantifiable means of sequencing projects, must move beyond using population as a surrogate for need
- There is no substitute for state- county- local participation and engagement on a regular basis
  
- ISWS has the vision of maintaining our digital flood hazard data; keeping communities and professional informed; facilitating incorporation of updated information into FEMA products
- As a CTP ISWS will perform PMRs and large scale studies
- ISWS plans outreach through web sites to better alert the engineering community about in-progress studies
- LOMR review by ISWS will provide an opportunity for good interaction and communication and coordination