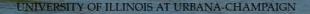


INSTITUTE OF NATURAL RESOURCE SUSTAINABILITY



LOMR/CLOMR Process

Christopher R. Hanstad, CFM



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About myself

- Started at ISWS in 2006
- Generated Flood Profiles for FEMA's Map Modernization Project
- Graduated in 2008 from University of Illinois
- Began processing LOMRs in 2010

Topics to be covered

- Illinois LOMR Delegation Program
- Types of Map Changes
- MT-2 (LOMR/CLOMR) Forms
- MT-2 (LOMR/CLOMR) Process Overview
- Questions

Illinois LOMR Delegation

- Illinois State Water Survey began reviewing LOMR/CLOMR applications September 1, 2010
- Illinois one of only 3 statewide participants in the LOMR Delegation Program
- LOMR/CLOMR requests are now sent directly to the Illinois State Water Survey for review

Illinois LOMR Delegation

Illinois State Water Survey Attn: Chris Hanstad 2204 Griffith Drive Champaign, IL 61820

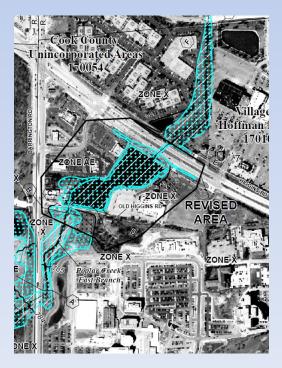
 LOMR/CLOMR review at ISWS follows same review and regulatory procedures as LOMR/CLOMR review at FEMA and/or contractors

Letters of Map Change (LOMC)

- A LOMC is a letter that reflects an official revision to the NFIP map
- LOMCs are issued in place of physical revisions and republications of the NFIP map
- LOMCs supersede the published NFIP map for the revision area
- Published map panel and FIS + LOMCs = Effective Data for communities

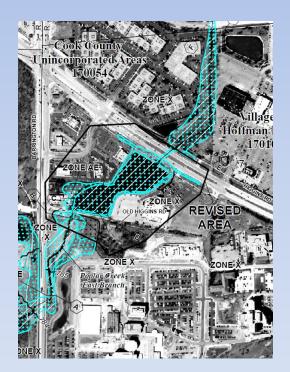
Letters of Map Change (LOMC)

- The NFIP map is a graphical depiction (SFHA) of flood risk data
- The depiction is driven by engineering data



Letters of Map Change (LOMC)

- Map Changes that establish or revise the location of a structure or property in relation to SFHA are MT-1 Map Changes
- Map Changes that establish or revise the engineering data that drives the SFHA depiction are MT-2 Map Changes

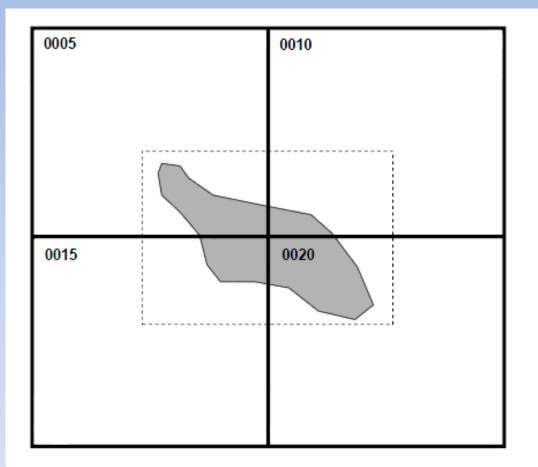


Types of LOMCs

- MT-1 Requests (Not processed by ISWS)
 - Letter of Map Amendment (LOMA)
 - Conditional Letter of Map Amendment (CLOMA)
 - Letter of Map Revision Based on Fill (LOMR-F)
 - Conditional Letter of Map Revision Based on Fill (CLOMR-F)
- Does not result in a change to Flood Insurance Rate Map (FIRM) or Flood Insurance Study (FIS) data

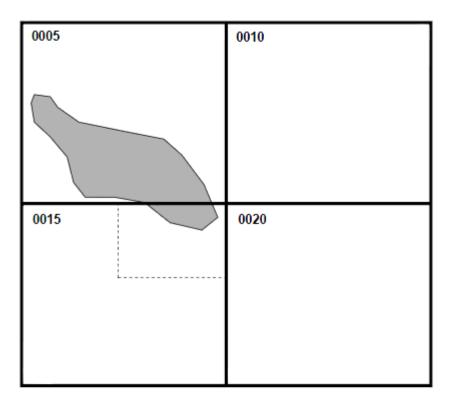
- MT-2 Requests
 - Letter of Map Revision (LOMR)
 - Conditional Letter of Map Revision (CLOMR)
- Processed by ISWS
- Requirements from NFIP Regulation 44 (CFR)
 Ch. 1 Parts 60, 65, and 72

- Letter of Map Revision (LOMR)
 - An official letter issued to communities by FEMA that revises the effective data shown on the community's Flood Insurance Rate Map (FIRM) and/or Flood Insurance Study (FIS)
 - Do not result in republication of FIRM and/or FIS unless the revision size exceeds pre-determined limits



EXAMPLE 2 – FOUR PANELS AFFECTED, BUT THE REVISION ON EACH PANEL FITS ON 11X17 SHEET OR SMALLER; PROCESSED AS LOMR

In Example 2, four panels are affected in the revision. Because the affected area on all four panels will fit on an 11" x 17" or smaller sheet, a LOMR can be issued.



EXAMPLE 3 – GREATER THAN A FULL PANEL REVISION; PROCESSED AS PMR

In Example 3, the revised area affects a full panel, and extends onto an adjacent panel. This revision is processed as a PMR.

- Physical Map Revision (PMR)
 - Unlike LOMRs, PMRs republish FIRM panels and FIS.
 - ISWS will perform technical review of data and FEMA will issue an official letter stating that the study has been approved and will be mapped when FEMA funds the mapping project

- Conditional Letter of Map Revision (CLOMR)
 - FEMA's comment of the impacts of a potential project. Helps to ensure the project is compliant with NFIP regulation prior to construction
 - Does not result in map change until follow-up LOMR is issued
 - Not a "Permit"

When is a CLOMR required?

• 44 CFR 65.12 states:

When a community proposes to permit encroachments upon the floodplain when a regulatory floodway has not been adopted or to permit encroachments upon an adopted regulatory floodway which will cause base flood elevation increases in excess of...(0.00 ft in floodway) and/or [0.1 ft in floodplain]...the community shall apply to the Administrator for conditional approval of such actions prior to permitting the encroachments to occur...

• Some communities may require a CLOMR when FEMA does not

When is a LOMR required?

• 44 CFR 65.3 states:

A community's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable but not later than six months after the date such information becomes available, a community shall notify the Administrator of the changes by submitting technical or scientific data in accordance with this part...

• Required following CLOMR

- Required for all LOMR and CLOMR requests
- Helps request become compliant with CFR Parts 60, 65, and 72
- Describes data requirements for request
- Helps applicant organize submittal
- Forces community involvement early on in the revision process

• MT-2 Form 1 "Overview and Concurrence"

	DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGEN OVERVIEW & CONCURRENCE FO	NCY			D. 1660-0016 oruary 28, 2014	a. The basis for this	evision request is (check all that	apply)					
You are not requir accuracy of the bu Security. Federal	PAPERWORK BURDEN DIS suden for this form is estimated to average 1 hours per rel to respond to this collection of information unless it dis rule estimate and any suggestions for reducing this burden Emergency Management Agency, 1900 South Bell St ission of the form is required to obtain or relation benefits u	response. The needed data, a plays a valid O to: Information treet. Arlington.	e burden estimat and completing, n MB control numb Collections Man VA 20958-300	eviewing, and sub er. Send comment Igement, Departm 5. Paperwork, R	mitting the form. Ints regarding the ent of Homeland eduction Project	Physical Chan Coastal Analys Weir-Dam Cha	s Hydraulic Analysis	n Alluvial Fan Analysis	Base Map Changes Corrections Natural Changes	CERTIFICATION BY R This certification is to be signed and sealed by elevation information data, hydrologic and hydr as desorbled in the MT-2 Forms instruction. understand that any false statement may be pu	aulic analysis, and any other support All documents submitted in supp	d professional engineer, or arting information as per NF ort of this request are con	architect authorized by law to certify IP regulations paragraph 65.2(b) and rect to the best of my knowledge. I
your completed s	survey to the above address.	nder the Nation	nai Filood Insuran	e riogram. riek	ise do not send	New Topograp	iic Data 🔄 Other (attach Des	cription)		Certifier's Name	Lic	ense No.	Expiration Date
	PRIVACY ACT STA							rea of concern is not required, but is very helpful	I during review.	Company Name	Te	ephone No.	Fax No.
Law 93-234.	National Flood Insurance Act of 1968, Public Law 90-448, a						n encompasses the following stru Channelization	uctures (check all that apply) Levee/Floodwall Bridge/Culve	ert	Signature	E-mail Address		Date
ROUTINE USE(S) amended. This inc Flood Insurance P	POSE[5]: This information is being collected for the puppose urance frogram (NPP) Flood Insurance Rate Maps (FRM), I. The information on this form may be disclosed as generally forgram (NPP), Letter of Map Antennitement (LOMA) (Flotuary forgram (NPP), Letter of Map Antennitement (LOMA) (Flotuary ne disclosure of information on this form is voluntary, however processing a determination regarding a requested charge	y permitted under the routine use 15, 2006, 71 Fl er, failure to prov to a (NFIP) Flo	ler 5 U.S.C § 552 es published in DI R 7990. wide the informati od Insurance Rat	a(b) of the Privacy HS/FEMA/NFIP/LC	Act of 1974, as DMA-1 National		Dam	Fill Other (Attack d to initiate CLOMR review). Please refer to the		Ensure the forms that are appropriate to yo Form name and (Number) Riverine Hydrology & Hydraulics Form (For Riverine Structures Form (Form 3)	m 2) New or revised discharges Channel is modified, additi addition/revision of leveef	or water-surface elevations on/revision of bridge/culvert loodwall, addition/revision of	ts.
	A. REQUESTED RESPONSE	FROM DHS-FE	EMA					C. REVIEW FEE		Coastal Analysis Form (Form 4) Coastal Structures Form (Form 5)	New or revised coastal ele Addition/revision of coasta		Seal (optional)
I LOMR: AK	a: (dreck one) where from DHS-FEMA commenting on whether a proposed prology changes (See 44 CFR Ch. 1, Parts 60, 65 & 72). whether from DHS-FEMA officially revising the current NFIP ma See 44 CFR Ch. 1, Parts 60, 65 & 72).					Please see the DHS-FEMA w		Ided? Yes. Fee Amount No, Attach Explant Cevent/thm/fm_fees.shtm for Fee Amounts at D. SIGNATURE the best of mv knowledge. I understand that an	nation nd Exemptions.	∐Alluvial Fan Flooding Form (Form 8)	Flood control measures or	alluvial fans	
	B. OVERVIE	344					ent under Title 18 of the United S	States code, Section 1001.	iy laise statement may be				
	panel(s) affected for all impacted communities is (are):					Name		Company					
						Mailing Address		Daytime Telephone No.	FAX No.				
Community No. Ex: 480301	Community Name City of Katy	State	Map No. 48473C	Panel No. 0005D	Effective Date 02/08/83			EMAIL ADDRESS					
480287	Hairis County	TX	48201C	0220G	09/28/90	Signature of Requester (Requ	red)		Date				
2. a Floo b.Types	Riverine Coastal Sha	llow Flooding (e	e.g., Zones AO ar	d AH)		conditional LONR request. Base floodplain management requireme permits have been, or in the case (EDA) compliance to DHG/PEMA p and 10 of the EGA has been ach documentation from the agency is existing on proposed structures in	Lipon the community's review, we fi is, including the requirement for whe of a conditional LOMR, will be obtain for to DHSIFEMA's review of the Con- ved Independently of DHSIFEMA's proving its compliance with Section 7	y acknowledge that we have received and reviewed th ind the completed or proposed project meets or is d real. For conditional LOWF request, the applicant has allow LOWE application. For LOWF request, the applicant has allow LLOWE application. For LOWF request, 1 advon- trooses. For actions authorized, funded, or being car alloy21 of the ESA will be submitted in addition, we have be reasonably safe from flooding as defined in 44 Cl ke this defermition.	lesigned to meet all of the community all necessary Federal, State, and local documented Endangered Species Act wiedge that compliance with sections 9 field out by Federal or State agencies, say etelemined that the land and any				
3. Project Name/Id		er (Attach Descr	nption)			Community Official's Name an	Title	Community Name					
1 · ·	signations affected: (Choices A, AH, A	AO, A1-A30, A9	99, AE, AR, V, V1	V30, VE, B, C, D,	X)	Mailing Address		Daytime Telephone No.	FAX No.				
5. Basis for Reque	est and Type of Revision:							EMAIL ADDRESS					
FEMA Form 086	5-0-27, (2/2011) Previously FEMA Form	n 81-89		MT-2 Form 1	Page 1 of 3	Community Official's signature	(required)		Date				
						FEMA Form 086-0-27, (2/2	011) Previously	r FEMA Form 81-89	MT-2 Form 1 Page 2 of 3	FEMA Form 086-0-27, (2/2011)	Previously FEMA Form i	31-89	MT-2 Form 1 Page 3 of 3

- Include community information, flood zones affected, flooding source, reason for request
- Signatures from community officials and professional engineer.
- Fee amount if applicable
 - Fees generally apply to requests that involve manmade changes in the SFHA

DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE HYDROLOGY & HYDRAULICS FORM

O.M.B. NO. 1660-0016 Expires February 28, 2014

B. HYDRAULICS

PAPERNORM SUBJECT DISCLOSURE NOTICE Public reporting hurden for this firm is estimated to servery 35 hum per expositions. The hurden settimate includes the time for reviewing instructions, searching existing data sources, pathering and maritaring the hereded data, and completing reviewing, and submitting the firm. You are not required to proport 0 this objection of information unless a valid OMB control number agrees in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to. Information Collections Management. Department of Homesian Security, Feeder Emergency Management, Alegons, 1900 south Bell Stever, Hurden VA. 2006-2007, Papework Reduction Project (1600-2016), Jalminssion of the tims required to obtain or natan benefits under the National Flood Insurance Program. Please divide services and the above address.								
PRIVACY ACT STATEMENT AUTHORITY: The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public Law 82-294.								
PRINCIPAL PURPOSE(S): This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood insurance Program (NFIP) Flood insurance Rate Maps (FIRM).								
ROUTINE USE(5): The information on this form may be disclosed as generally permitted under 5 U.S.C.§ 562a(b) of the Privacy Act of 1974, as amended. This induces using this information as necessary and authorized by the routine use published in DHS/FEMA/NFIPLOMA-1 National Flood Insurance Program (NFIP): Letter of Map Amendment (LCMA) February 15, 2006, 71 FR 7690.								
DISCLOSURE: The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent FEMA from processing a determination regarding a requested change to a NFIP Flood Insurance Rate Maps (FIRM).								
Flooding Source:								
Note: Fill out one form for each flooding source studied.								
A. HYDROLOGY								
1. Reason for New Hydrologic Analysis (check all that apply)								
Not revised (skip to section B) No existing analysis Improved data								
Alternative methodology								
2. Comparison of Representative 1%-Annual-Chance Discharges								
Location Drainage Area (Sq. Ml.) Effective FIS (cfs) Revised (cfs)								
Methodology for New Hydrologic Analysis (check all that apply)								
Statistical Analysis of Gage Records Precipitation/runoff Model Specify Model								
Regional Regression Equations Other (please attach description)								
Please endose all relevant models in digital format, maps, computations (including computation of parameters), and documentation to support the new analysis.								
4. Review/Approval of Analysis.								
If your community requires a regional, state, or federal agency to review the hydrologic analysis, please attach evidence of approval/review.								
5. Impacts of Sediment Transport on Hydrology								
Is the hydrology for the revised flooding source(s) affected by sediment transport?								
If Yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation for why sediment transport was not considered.								
EMA Form 086-0-27A, (2/2011) Previously FEMA Form 81-89 MT-2 Form 2 Page 1 of 3								

	Description	Cross Section	Effec	Vater-Surface Elevation	oposed/Revised
Downstream Limit					
Upstream Limit			_		
	vations must tie-into the E	ffective elevations within 0.5	foot at the downstream	and upstream limits o	f revision.
Hydraulic Method/Model	Used				
3. Pre-Submittal Review of	Hydraulic Models				
		ECK-2 and CHECK-RAS to a EC-2 and HEC-RAS models			raulic models,
respectively. We recommen	ia macyou review your P	IEC-2 and HEC-FORS models	with Check-2 and Ch	ECK-POID.	
4. Models Submitted	File	Natural Run Plan	Eloodwa File	<u>y Run</u> Plan	Datum
Duplicate Effective Model*	Name	Name	Name	Name	
Corrective Effective Model*	File Name	Plan Name	File Name	Plan Name	
	File	Plan	File	Plan	
Existing or Pre-Project Conditions Model	Name	Name	Name	Name	
Revised or Post-Project	File Name	Plan Name	File Name	Plan	
Conditions Model	File	Name	Fie	Name Plan	
Other - (attach description)	Name	Name	Name	Name	
* For details, refer to the co	rresponding section of th	e instructions.			
		Digital Mode	Is Submitted? (Require	ed)	
		C. MAPPING REQUIR	EMENTS		
proposed conditions 1%-an floodplains and regulatory fl indicated; stream, road, and	nual-chance floodplain (f loodway (for detailed Zor d other alignments (e.g. d egistered professional en	owing the following informatio or approximate Zone A revisio e AE, AO, and AH revisions); lams, levees, etc.); current co gineer registered in the subject	ns) or the boundaries location and alignmen mmunity easements ar	of the 1% - and 0.2%- t of all cross sections v id boundaries; bounda	annual-chance with stationing contro rries of the requester
		🔽 Digital Mapp	oing (GIS/CADD) Data	Submitted	
Topographic Information					
				Date	
Source					
Source					
Source					

D. COMMON REGULATORY REQUIREMENTS*

ic)	1. For LOMR/CLOMR Requests, do Base Flood Elevations (BFEs) Increase?	
sed/Revised	a. For CLOMR requests, if either of the following is true, please submit evidence of compliance with Section 65.12 of the NFIP regulations:	
	The proposed project encroaches upon a regulatory floodway and would result in increases above 0.00 foot compared to pre-project conditions.	
vision.	The proposed project encroaches upon a SFHA with or without BFEs established and would result in increases above 1.00 foot compared to pre-prive conditions.	
	b. Does this LOMR cause increase in the BFE and/or SFHA compared with the effective BFEs and/or SFHA?	
	If Yes, please attach proof of property owner notification and acceptance (if available). Elements of and examples of property owner notifications can be found in the MT-2 Form instructions	
lic models,		
	2. Does the request involve the placement or proposed placement of fill?	
Datum	If Yes, the community must be able to origify that the area to be removed from the special hazard area, to include any structures or proposed structures, meets all of best andratics of the load froughain ondrances, and is massorably able from fooding in accordance with the NFIP regulations set forth at 44 CFR 60.3(x)(3):65.5(a)(4), and 65.6(a)(14). Please see the MT-2 instructions for more information.	
	3. For LOMR requests, is the regulatory floodway being revised?	
	If Yes, attach evidence of regulatory floodway revision notification. As per paragraph 65.7(b)(1) of the NFIP regulations, notification is required for requests involving revisions to the regulatory floodway. (Not required for revisions to approximate 11 ⁻ Ammal-chance floodplains (studied Zone A designation) unless a regulation (sociation can be able)shed. Elements and examples of regulatory floodway to being established. Elements and examples of regulatory revision notification can be able)shed.	
	be found in the MT-2 Form 2 instructions.)	
	 For CLOMR requests, please submit documentation to FEMA and the community to show that you have complied with Sections 9 and 10 of the Endangered Species Act (ESA). 	
	For actions authorized, funded, or being carried out by Federal or State agencies, please submit documentation from the agency showing its compliance with Section 7(a)(2) of the ESA. Please see MT-3-Instructions for more detail.	
	* Not inclusive of all applicable regulatory requirements. For details, see 44 CFR parts 80 and 85.	
ctive, existing, and ual-chance istationing control s of the requester's arks; and the		
RM and/or FBFM FBFM, at the same dway that tie-in sam limits of the		

FEMA Form 086-0-27A, (2/2011)

Annotated FIRM and/or FBFM (Required) Previously FEMA Form 81-89

MT-2 Form 2 Page 2 of 3

FEMA Form 086-0-27A, (2/2011) Previously FEMA Form 81-8 MT-2 Form 2 Page 3 of 3

- MT-2 Form 2 "Riverine Hydrology & Hydraulics"
 - Hydrologic methodology
 - Hydraulic methodology
 - Topographic workmap
 - Help to ensure request has met technical requirements
 - Common regulations requirement

MT-2 Form Instructions

- MT-2 Instructions offer guidance for using the forms.
- Provide explanations of regulatory requirements
- Sample templates for property owner notifications

Additional Items

- Project Narrative
 - Describe project
 - Discuss what effective data was available and how it was obtained
 - Discuss modeling methodology
 - Discuss any modeling discrepancies or errors
- State Approval (IDNR-OWR concurrence)
 - For floodway revisions, include IDNR-OWR floodway permit and IDNR-OWR floodway revision concurrence

- ISWS formally acknowledges case received
 - Informs requestor of case number
 - Provides requestor contact information
- ISWS performs initial technical review
 - Takes inventory of data submitted
 - Drafts Additional Data Request Letter

- Goals of initial technical review
 - Understand project or proposed project
 - Gather all effective data impacted by request
 - Determine which communities are impacted by request and if they acknowledged request
 - Determine impacts to FIRM/FIS; BFE increases?
 Floodway Revision?
 - Determine if all regulatory requirements have been satisfied

- ISWS formally requests additional data
 - Includes summary of data items required to continue processing the request
 - Applicant has 90 days to fully respond to AD letter; after 90 days case suspended

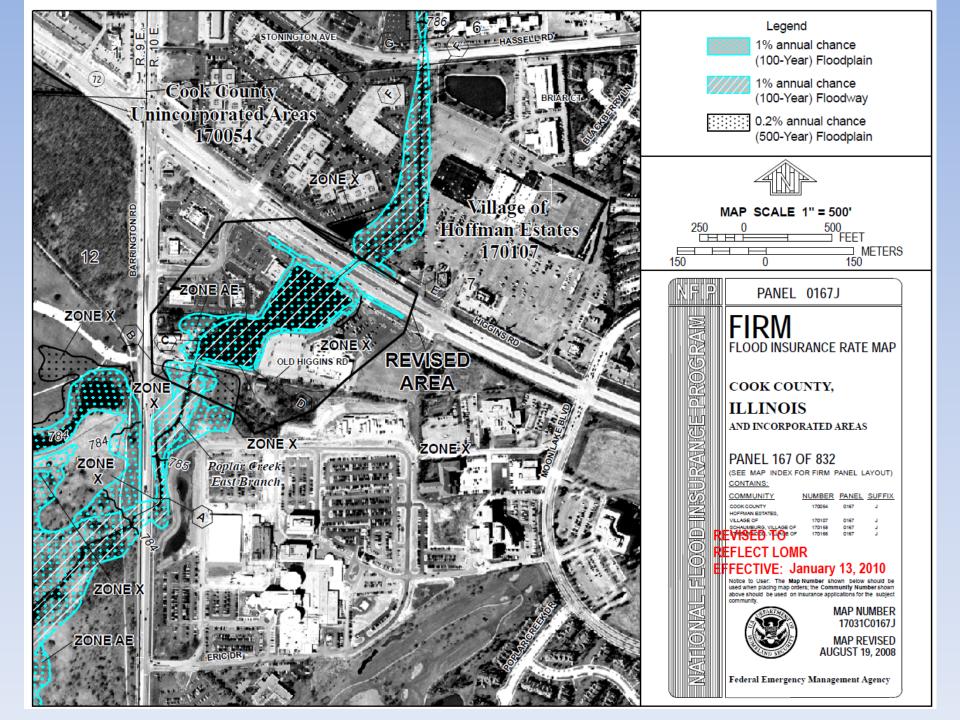
- ISWS performs detailed technical review
 - Review of methodology
 - Comparison of models
 - Comparison of modeled widths to mapped widths should be within 5% of mapping scale

- Goals of detailed technical review:
 - Approve the hydrologic and hydraulic analyses for final processing of revision
 - Summarize the final changes/ proposed changes to effective FIRM/FIS
 - Ensure that all final changes have fulfilled the necessary regulatory requirements

- ISWS drafts determination documents
- ISWS drafts revised FIRM panels, flood profile, FIS tables, etc.

- LOMR/CLOMR documents are reviewed internally

Page 1 of 4	Issue Date:	December 1	4, 2009	Effective Date:	January 13, 2010	LOMR-APP					
Follows Conditional Case No.: 93-05-341R											
Federal Emergency Management Agency Washington, D.C. 20472											
					AP REVISION						
COMMUNITY AND REVISION INFORMATION PROJECT DESCRIPTION BASIS											
COMMUNITY		Coo	loffman Esta k County linois	tes	DETENTION BASIN	i	Floodway Hydraulic Anai New Topograpi				
	COMMUNIT	Y NO.: 170107	,								
IDENTIFIER Poplar Creek East Branch - Stonegate Restaurant Mall APPROXIMATE LATITUDE & LONGITUDE: 42.057, -88.143 SOURCE: USGS QUADRANGLE DATUM: NAD 27											
	ANNOTATE	ED MAPPING EN	CLOSURES		ANNOTATED STUDY ENCLOSURES						
TYPE: FIRM* NO.: 17031C0167 J DATE: August 19, 2008 DATE OF EFFECTIVE FLOOD INSURANCE STUDY: August 19, 2008 FLOODWAY DATA TABLE: 19											
		-	FLOO	DING SOURCE(S)	*** FHBM - Flood Hazard Bou & REVISED REACH(ES) Road to just upstream of Higg						
				SUMMARY OF	REVISIONS						
Flooding Source Poplar Creek East				Effective Flood Zone AE Floodway Zone X (shaded	Zone AE Floodway	Increase YES NONE YES	YES YES NONE				
* BFEs - Base Flo	od Elevations										
regarding a req a revision to the warranted. Th panels revised This determinatio any questions abo	uest for a Le e flood hazan is document by this LOMF n is based on t out this docum	tter of Map Rev ds depicted in f revises the eff R for floodplain the flood data pre ent, please conta	vision (LOMR) the Flood Insu ective NFIP m management esently available act the FEMA M) for the area desc irance Study (FIS iap, as indicated in purposes and for e. The enclosed do lap Assistance Cent	INATION and Security's Federal Emi- ribed above. Using the ir report and/or National File the attached documental all flood insurance policie cuments provide additional in er toll free at 1-877-338-2827 Information about the NFIP is	nformation su bod Insuranc tion. Please s and renewa formation rega (1-877-FEMA	Ibmitted, we have o e Program (NFIP) r use the enclosed a als in your commun ding this determination MAP) or by letter add	letermined that nap is annotated map ity. on. If you have ressed to the			
			En	wid N. Bascom, CFM gineering Managem tigation Directorate	// Program Specialist ent Branch	1	112553 10.3.1.09052	2148 102-I-C			



- Draft LOMR/CLOMR send to FEMA for approval
 - ISWS responds to comments prior to approval
- LOMR/CLOMR issued
 - Generally cases become effective either 30, 90, or 120 days after the issue date of LOMR
 - Some cases become effective on the issue date if property owners accept changes
 - PMRs are not assigned an effective date until the mapping project has been completed

ILLINOIS STATE WATER SURVEY

INSTITUTE OF NATURAL RESOURCE SUSTAINABILITY

Questions?

I

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN