



Floodplains and Flood Insurance

Calumet Stormwater Collaborative

March 4, 2022

The Calumet Stormwater Collaborative (CSC) is a diverse group of stakeholders working to improve coordination of knowledge, technology and financial resources to minimize the negative impacts of stormwater in the Calumet region.

Goals for Presentation

- Increase understanding of flood insurance and the new National Flood Insurance Program insurance premium rating system
- Increase understanding of federal floodplain maps
- Improve understanding of your role in floodplain management



Basic Terms

- Federal Emergency Management Agency (FEMA)
- National Flood Insurance Program (NFIP)
- Flood Insurance Rate Map (FIRM)
- **Floodplain, Regulatory Floodplain, Zone A/AE/AH, Special Flood Hazard Area(SFHA)**
- Base Flood Elevation
- Elevation Certificate
- Letter of Map Amendment (LOMA)

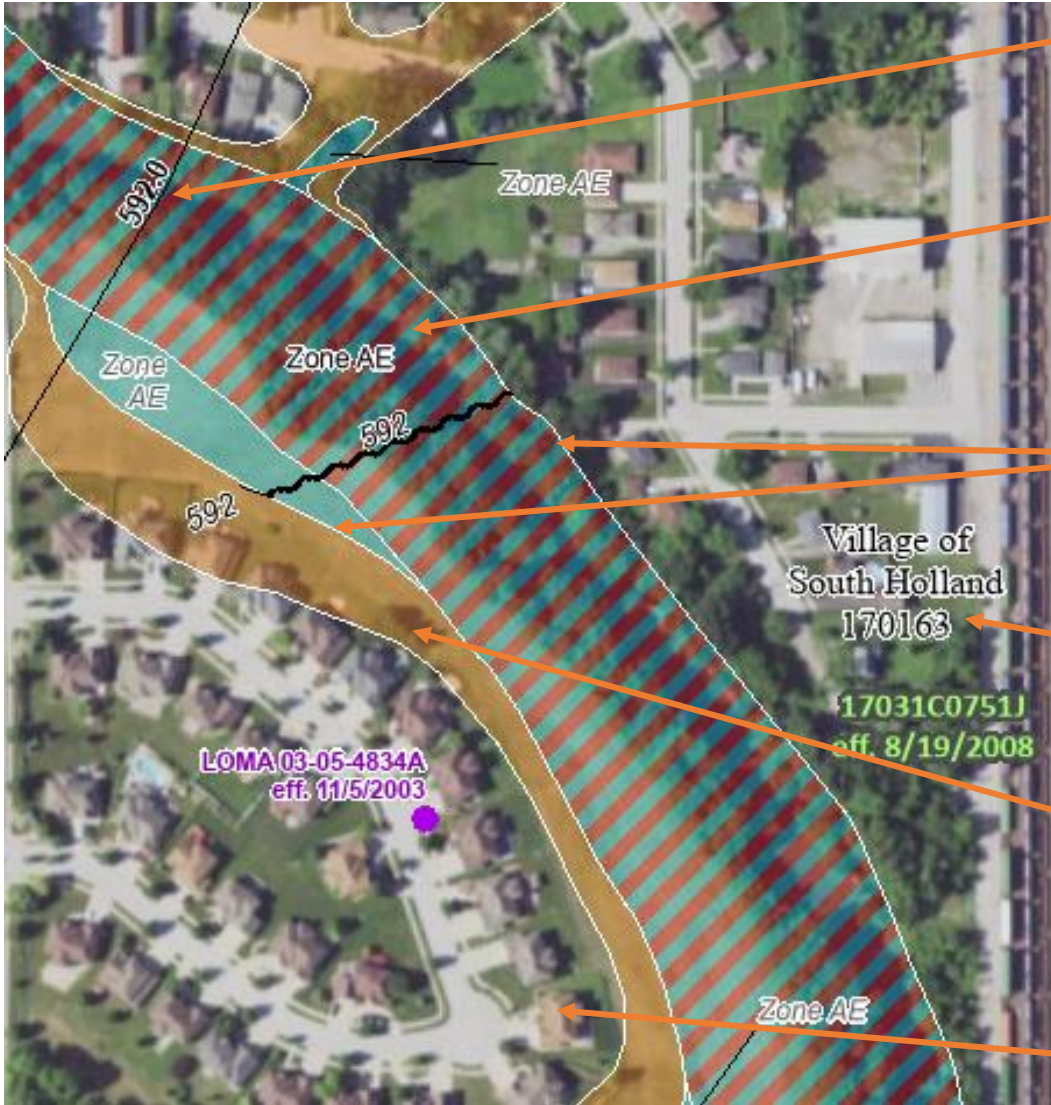


Am I in the Floodplain?

On-line Sources –
immediate results

- FEMA Map Service Center
- National Flood Hazard Layer Viewer

Understanding a Floodplain Map - FIRM



Base Flood Elevation (BFE) – Height water will get during a base flood

Floodway – Part of Zone AE with red cross-hatched lines

Zone A, AE, AH, AO – Mapped/Regulatory Floodplain – Blue shaded area including floodway

Community Name and NFIP Number

FIRM map number and date

Shaded Zone X - Lower risk floodplain restrictions for critical facilities

Unshaded Zone X – All other areas



Flood Zones

Zone AE with Floodway shown, base flood elevation drops as you go downstream



Zone AH – Shallow ponding – single base flood elevation shown

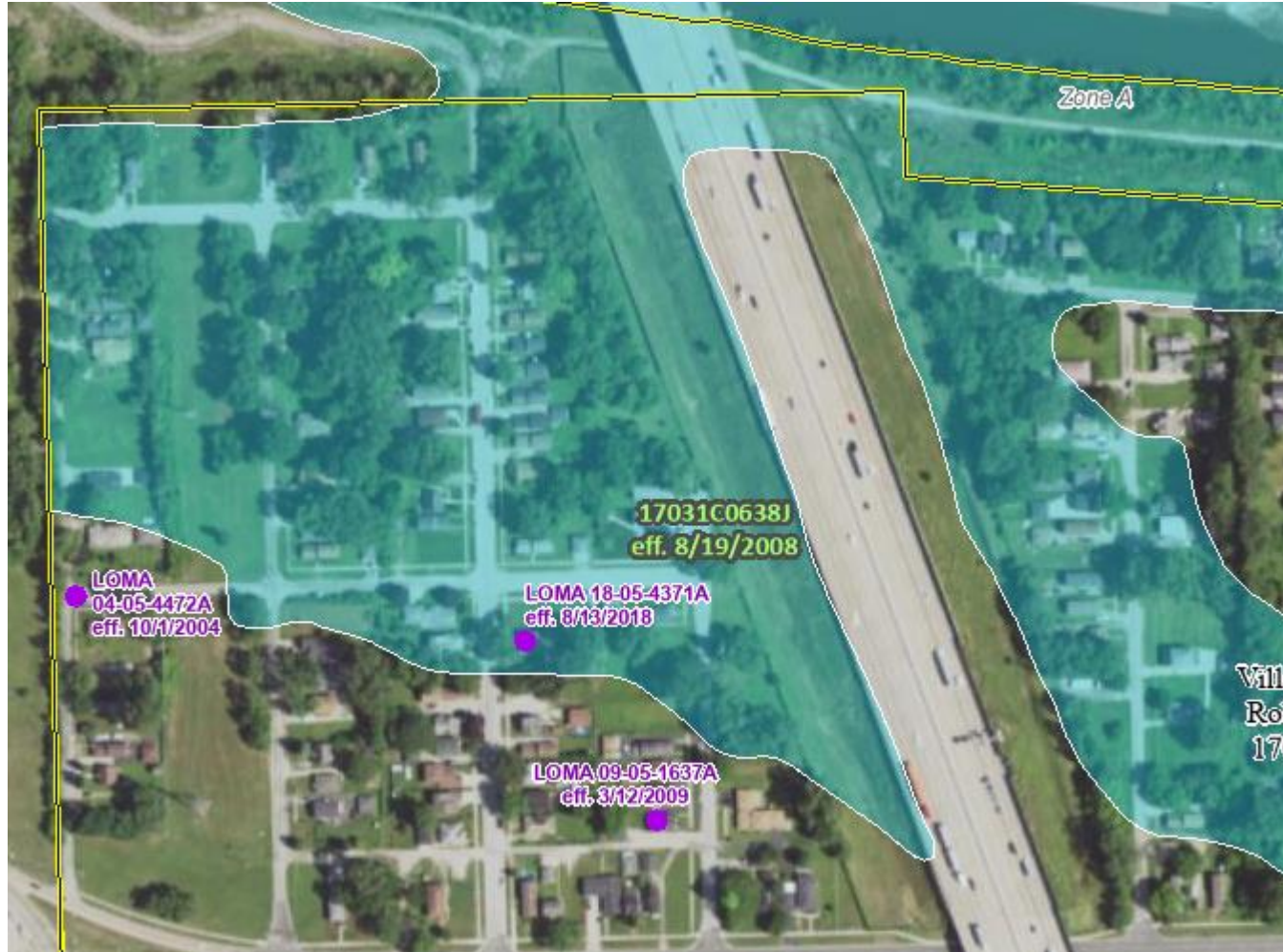


Flood Zones

Zone A - No flood elevation is provided.

Calculations or studies can be submitted to document the base flood elevation.

ALL DEVELOPMENT IN A ZONE A RIVERINE FLOODPLAIN WITH A DRAINAGE AREA OF 1 SQ. MI. OR MORE MUST GET A STATE FLOODWAY PERMIT UNDER PART 3700 RULES



What is Different About the Floodway?

- Floodways are where flood flows are deeper and faster.
- Illinois floodway are large, requiring that 90% of the floodplain storage is provided in the floodway.
- In Illinois IDNR/OWR has jurisdiction over all floodways with drainage area over 1 sq. mi. in an urban watershed.
- Designated floodway or mapped floodways must meet Appropriate Use Criteria – NO NEW BUILDINGS. Goal is to keep development limited to allow for conveyance.

National Flood Hazard Layer

Floodway



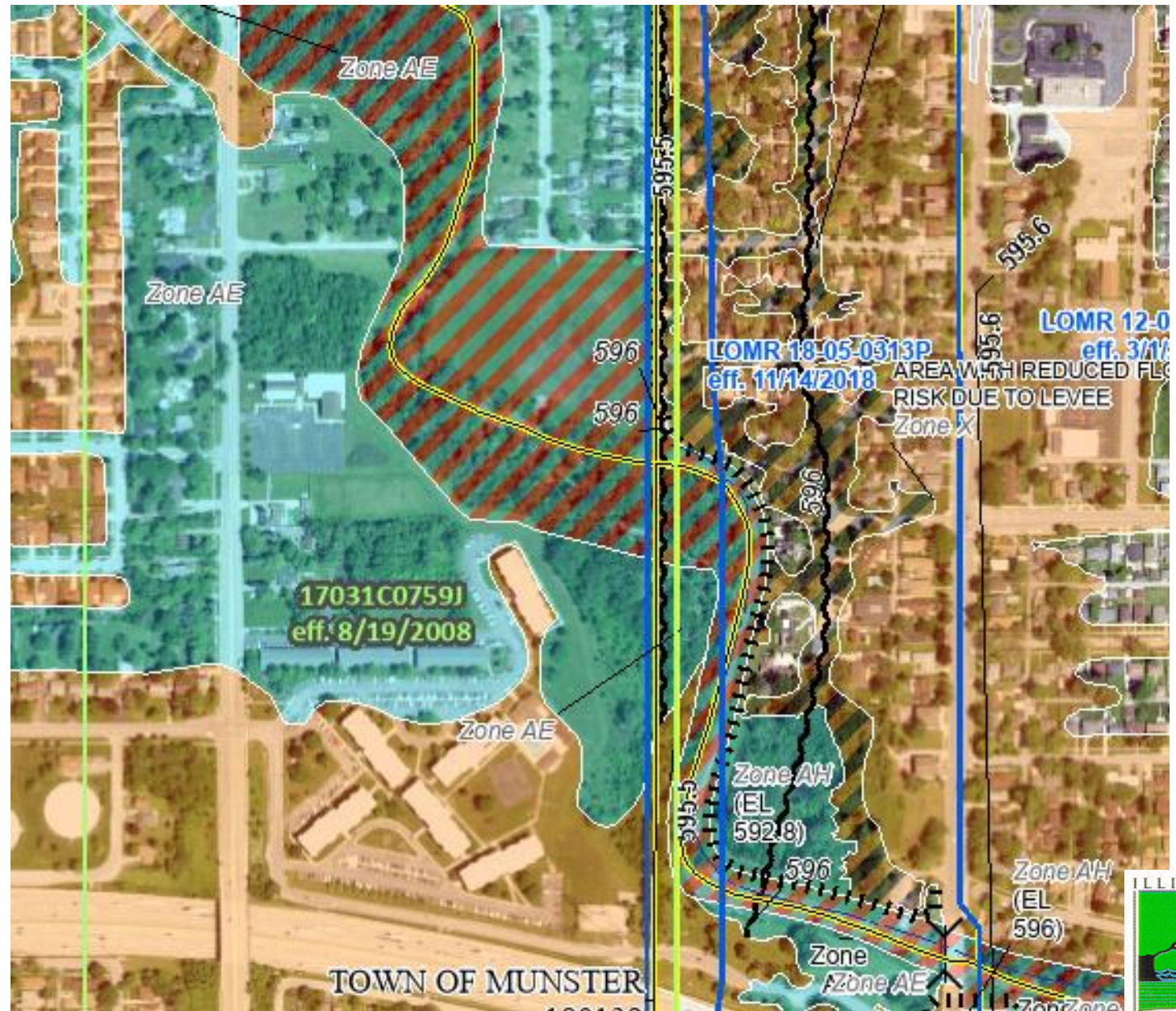
Zone A/AE/AH



Shaded X



Levee protection



FEMA Flood Map Service Center: Welcome!

Looking for a Flood Map? [?](#)

Enter an address, a place, or longitude/latitude coordinates:

Looking for more than just a current flood map?

Visit [Search All Products](#) to access the full range of flood risk products for your community.



FEMA Flood Map Service Center: Search All Products

Choose one of the three search options below and optionally enter a posting date range.

Jurisdiction

Jurisdiction Name

Product ID [?](#)

State

ILLINOIS



Jurisdiction Name or FEMA ID

(Ex. Fairfax County-wide or 51059C)

Product ID

(Ex. Panel Number, LOMC Case Number)

County

GRUNDY COUNTY



Community

BRACEVILLE, VILLAGE OF



> [Filter By Posting Date Range \(Optional\)](#)



FEMA Flood Map Service Center: Search By Address

Enter an address, place, or coordinates: [?](#)

303 N Eastern ave, Joliet

Search



Whether you are in a high risk zone or not, you may need [flood insurance](#) because most homeowners insurance doesn't cover flood damage. If you live in an area with low or moderate flood risk, you are 5 times more likely to experience flood than a fire in your home over the next 30 years. For many, a National Flood Insurance Program's flood insurance policy could cost less than \$400 per year. Call your insurance agent today and protect what you've built.

Learn more about [steps you can take](#) to reduce flood risk damage.

Search Results—Products for JOLIET, CITY OF

[Show ALL Products »](#)

The flood map for the selected area is number **17197C0164G**, effective on **02/15/2019** [?](#)

DYNAMIC MAP



PRINT MAP/
FIRMette

MAP IMAGE



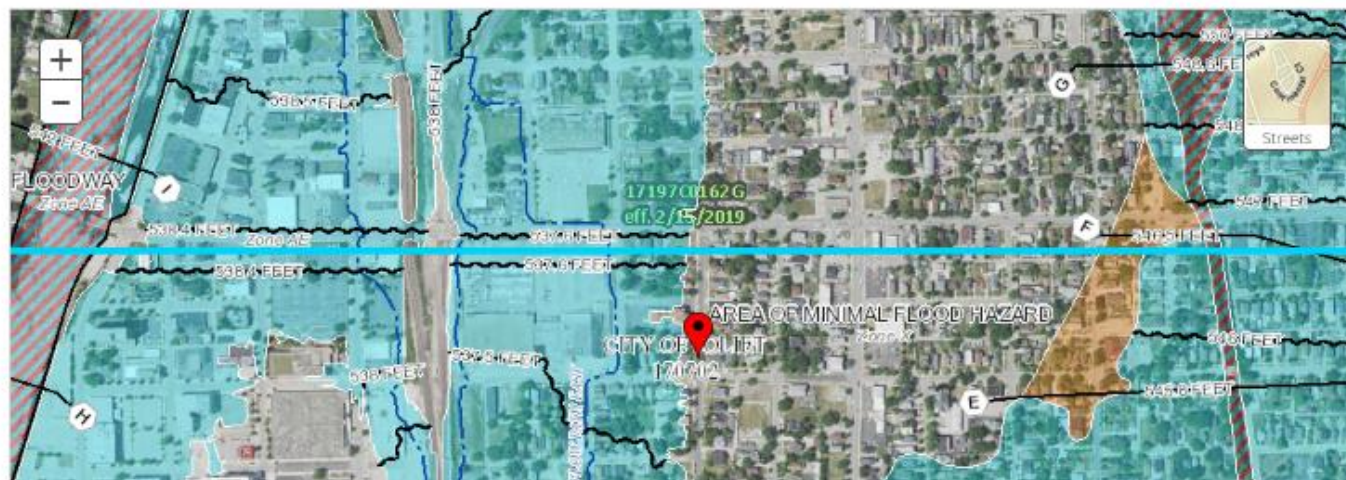
DOWNLOAD
FIRM PANEL

Changes to this FIRM [?](#)

- Revisions (0)
- Amendments (3)
- Revalidations (2)

You can choose a new flood map or move the location pin by selecting a different location on the locator map below or by entering a new location in the search field above. It may take a minute or more during peak hours to generate a dynamic FIRMette. If you are a person with a disability, are blind, or have low vision, and need assistance, please contact a [map specialist](#).

[Go To NFHL Viewer »](#)



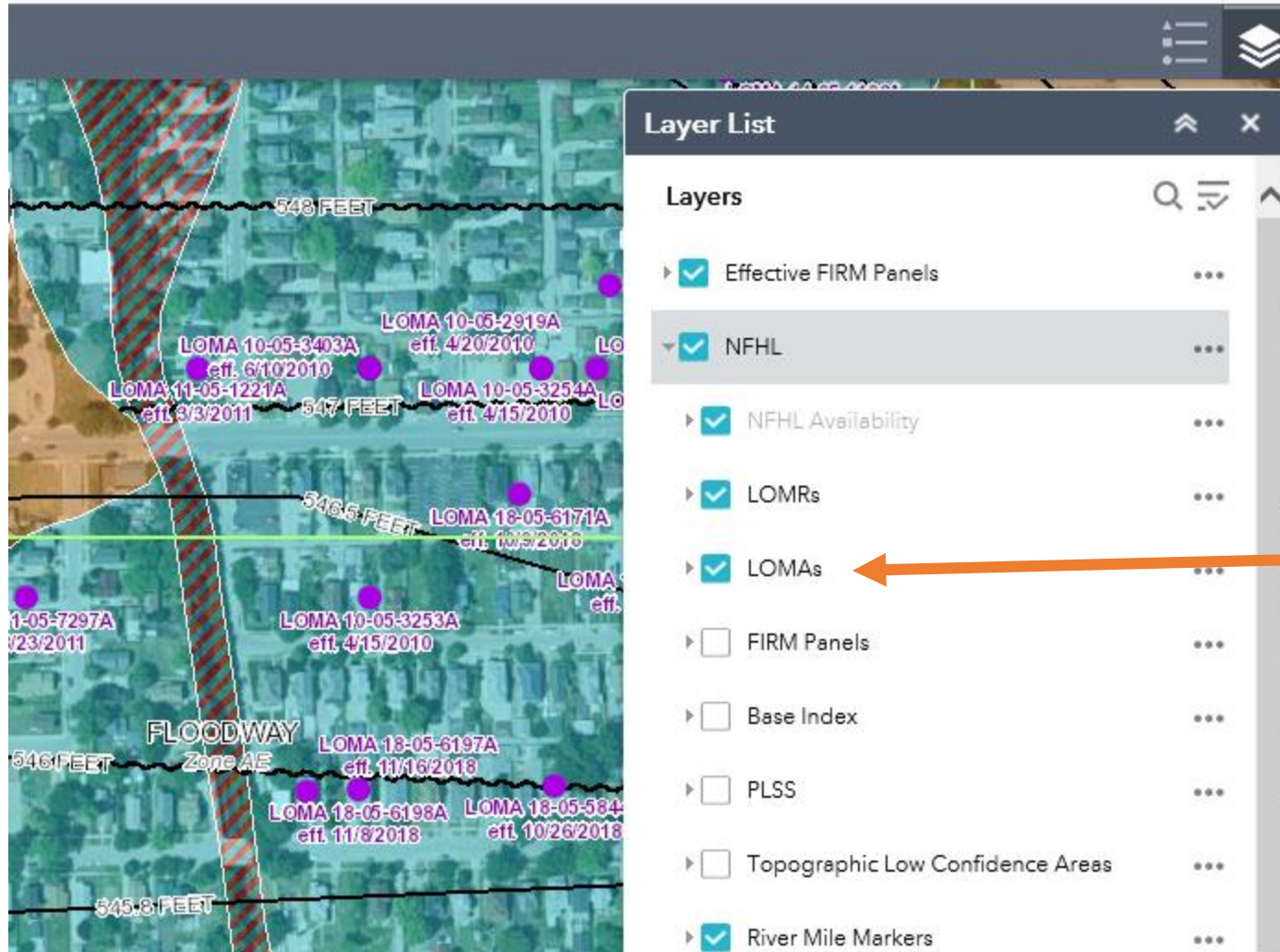
National Flood Hazard Layer Viewer



Search "FEMA NFHL Viewer"



National Flood Hazard Layer Viewer



National Flood Hazard Layer Viewer

Web AppBuilder for ArcGIS

17197C0162G
eff. 2/15/2019

LOMA 19-05-3702A
eff. 7/17/2019

17197C0164G
eff. 2/15/2019

AREA OF MINIMAL FLOOD
Zone X

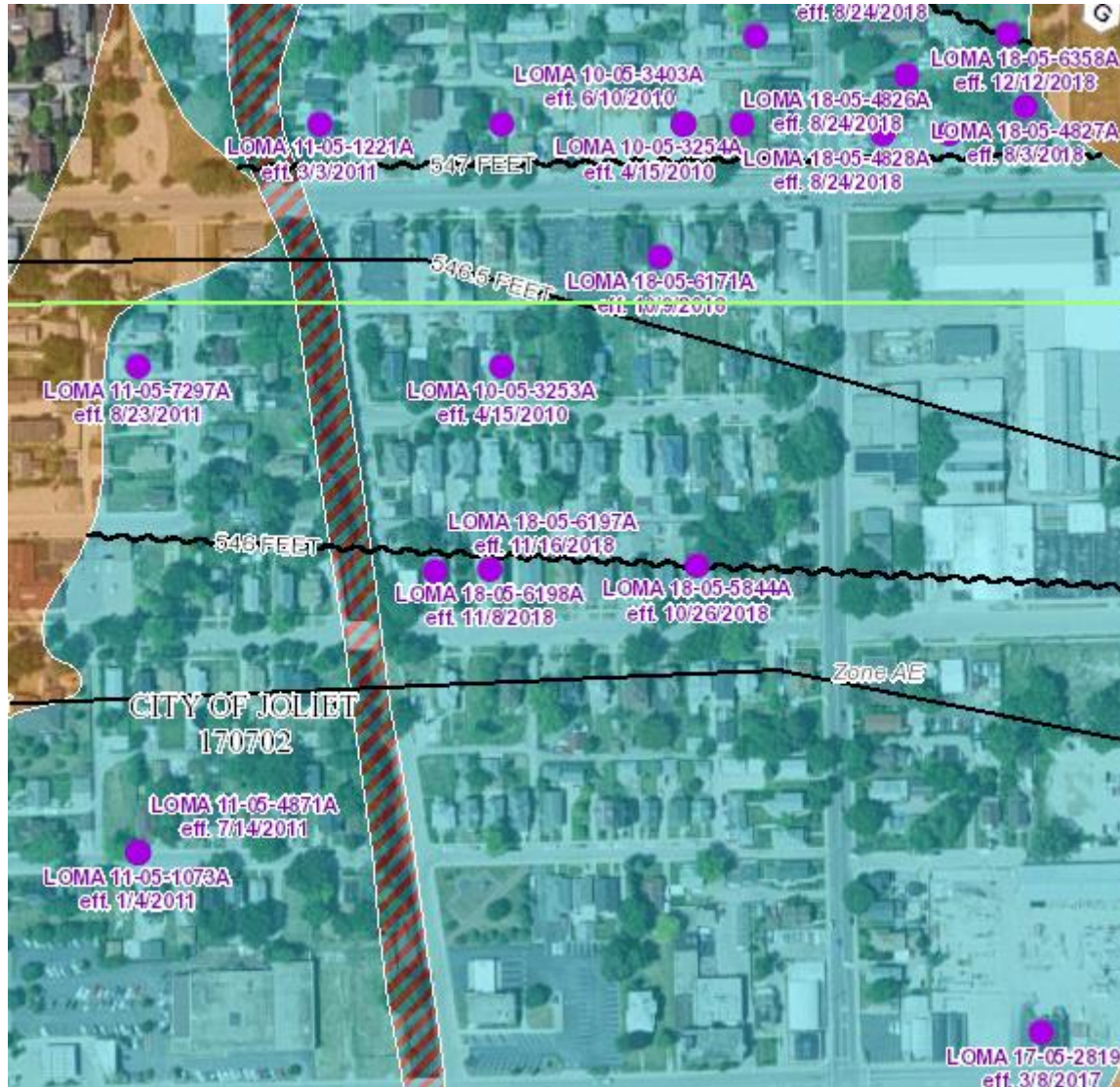
Layer List

Layers

- Effective FIRM Panels
- NFHL
- NFHL Availability
- LOMRs
- LOMAs
- FIRM Panels
- Base Index
- PLSS
- Topographic Low Confidence Areas
- River Mile Markers
- Datum Conversion Points
- Coastal Gages
- Gages

ILLINOIS
DEPARTMENT OF
NATURAL
RESOURCES

Map Changes



Sometimes the maps are just plain wrong!

If a house is on higher ground, there is a process to correct the map...

LOMA

Letter of Map Amendment



Letter of Map Amendment

Page 1 of 2 Date: July 14, 2011 Case No.: 11-05-4871A LOMA



Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	CITY OF JOLIET, KENDALL COUNTY, ILLINOIS	A portion of lot 8, County Clerk's Subdivision of part of Olin's Subdivision of Block 5 in Young and Cagwin's Subdivision, as described in the Quit Claim Deed, recorded as Document No. R93-118161, in the Office of the Recorder, Will County, Illinois
	COMMUNITY NO.: 170702	
AFFECTED MAP PANEL	NUMBER: 17197C0164E	
	DATE: 9/6/1995	
FLOODING SOURCE: SPRING CREEK		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 41.529, -88.068 SOURCE OF LAT & LONG: STREETS & TRIPS 2009 DATUM: WGS 84


DETERMINATION

LOT	BLOCK/SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NGVD 29)	LOWEST ADJACENT GRADE ELEVATION (NGVD 29)	LOWEST LOT ELEVATION (NGVD 29)
8	--	--	558-560 Dover Street	Property	X (shaded)	545.9 feet	546.1 feet	546.1 feet

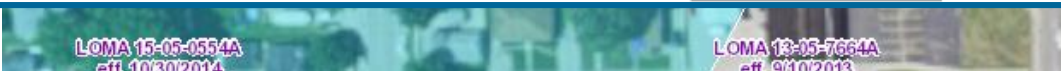
Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).



LOMA - DENIAL

Page 1 of 2	Date: January 06, 2009	Case No.: 08-05-5179A	LOMA-DEN
 <h2 style="margin: 0;">Federal Emergency Management Agency</h2> <p style="margin: 0;">Washington, D.C. 20472</p>			
<h3 style="margin: 0;">LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (NON-REMOVAL)</h3>			
COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION	
COMMUNITY	CITY OF MORRIS, GRUNDY COUNTY, ILLINOIS	A portion of Lot 16, Rosemen's Subdivision, as described in the Warranty Deed Illinois Statutory Individual recorded as Document No. 487381, in the Office of the Recorder, Grundy County, Illinois	
	COMMUNITY NO.: 170263		
AFFECTED MAP PANEL	NUMBER: 1702630005C		

DETERMINATION								
LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS NOT REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NGVD 29)	LOWEST ADJACENT GRADE ELEVATION (NGVD 29)	LOWEST LOT ELEVATION (NGVD 29)
16	--	Rosemen's	1203 Liberty Street	Structure	A	515.0 feet	514.6 feet	--



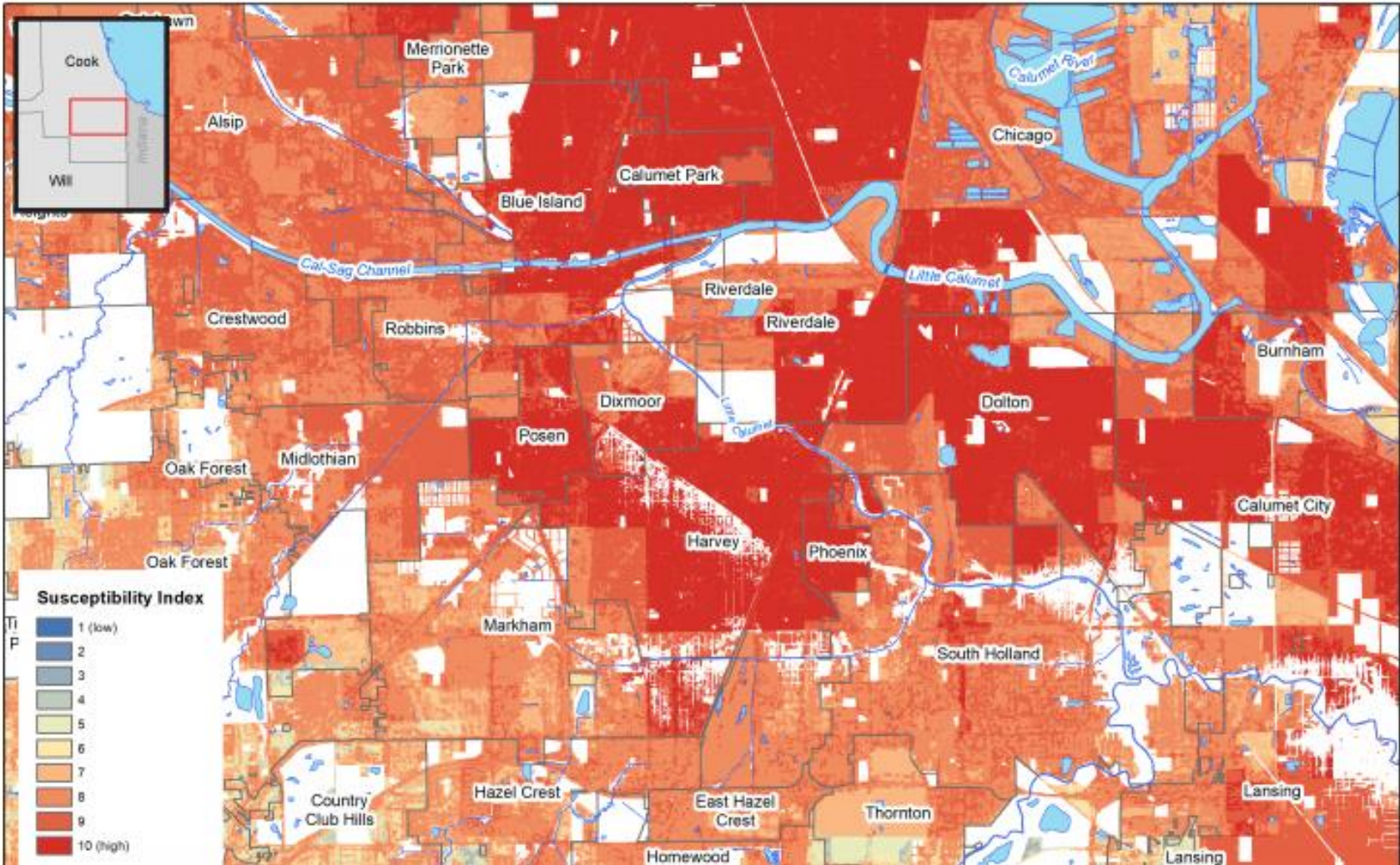
Topographic Low Confidence Areas ***

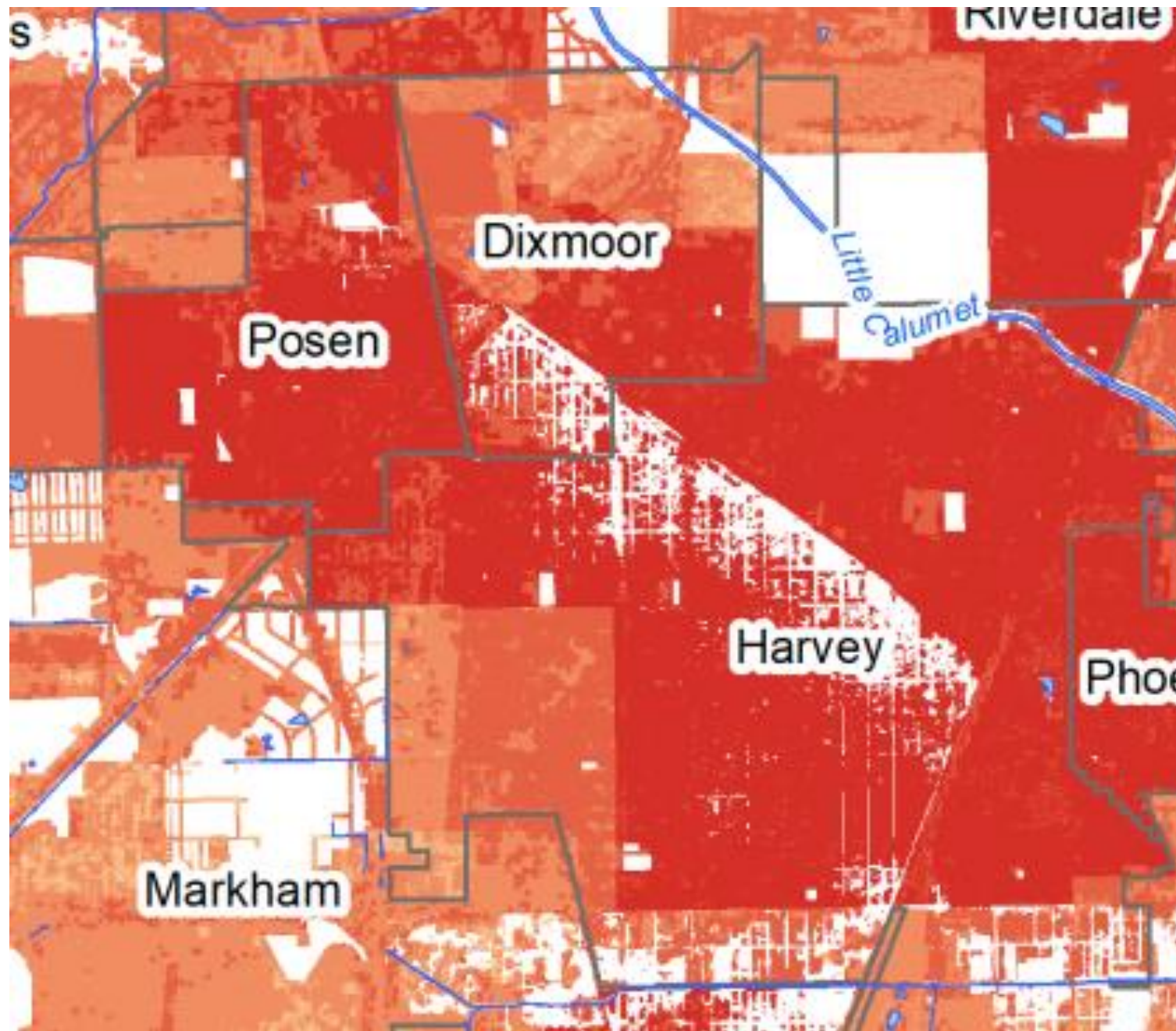


CSC Work Plan 2018-2021

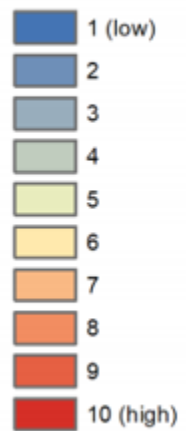
RISK OF URBAN FLOODING IN THE CALUMET REGION OF ILLINOIS

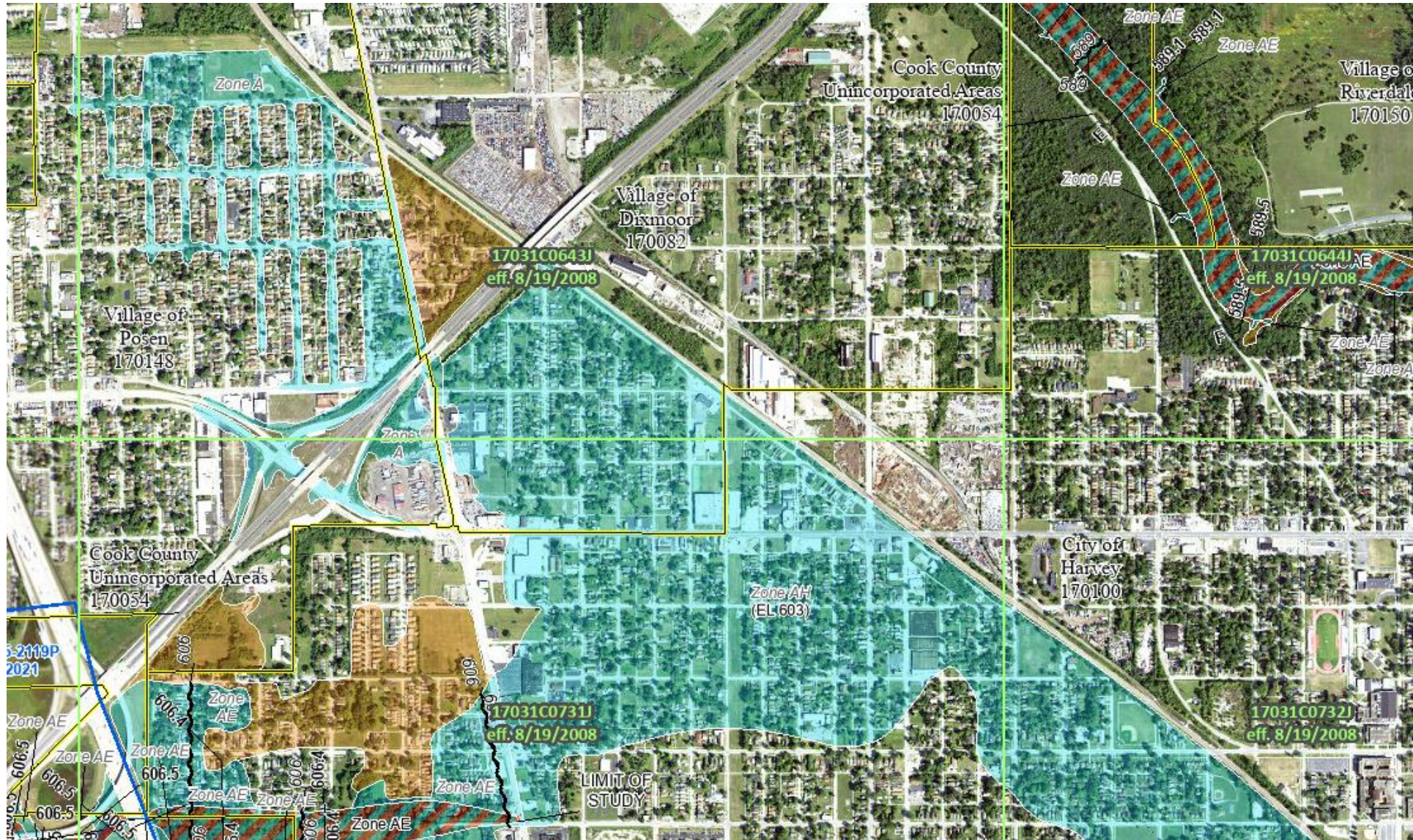
Based on CMAP's Regional Flood Susceptibility Index (2018)





Susceptibility Index







Flood Insurance

What is the NFIP?

Voluntary federal insurance program that provides:

- **Flood insurance for property owners, businesses and renters**
- **Improved floodplain management**
- **Maps of the flood hazard zones**

To join a community must:

- **Adopt the flood hazard maps and studies**
- **Adopt flood hazard regulations**
- **Enforce the flood hazard regulations to protect new buildings and prevent increased damages**



Who Can Buy Flood Insurance?

- Anyone can buy a private flood insurance policy
- For an NFIP policy, the community where the building is located must be enrolled in the NFIP. Locally, Oak Park is the only non-participating community.
- Flood insurance is available for all buildings, premiums based on risk and RENTERS can get contents only policies.



Insurable Property

2 or more rigid walls - fully secured roof
permanently fixed to site - at least 51% above ground
Includes manufactured homes

Who Must Buy Flood Insurance?

- **Buildings/Mobile Homes in Mapped 1% Annual Chance Floodplain (100-year)**
- **When buildings are used as security for a loan –finished buildings and buildings under construction**
- **Loan is Federally backed**

What is a flood in the NFIP?

Excess Water on Normally Dry Land

Officially a Flood is:

- A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is your property) from:
 - ❖ Overflow of inland waters or tidal waters
 - ❖ Unusual and rapid accumulation or runoff of surface waters from any source
 - ❖ Mudflow
- Collapse or subsidence of land along a shore of a lake...as a result of erosion...caused by waves ...that result in a flood

Filing a claim?

- **A flood insurance claim is paid when a structure has been flooded by SURFACE WATER.**
- Flood waters need to be touching the home and enter through:
 - ❖ a window well
 - ❖ over the foundation
 - ❖ through a doorway or window
- Flood Insurance does not pay if only flooded by:
 - ❖ Sanitary backup
 - ❖ Sump pump failure/overflow
 - ❖ Seepage through foundation cracks

What does NFIP Flood Insurance Cover in a Basement?

Basement - Building Policy

- Foundation walls, anchorage systems, and staircases attached to the building
- Furnaces, water heaters, heat pumps, and sump pumps
- Electrical outlets, switches, and circuit-breaker boxes
- Drywall for walls and ceilings
- Non-flammable insulation

Basement - Contents Policy includes

- Washers and dryers
- Food freezers and the food in them (but not refrigerators)

LIMITED BASEMENT COVERAGE



AGAIN – NFIP Policy Does NOT Cover

- Basement improvements like carpets and furniture
- Basement personal belongings



Zurich basement, June 2013 (Chicago Tribune, Dan W)

How Much Flood Insurance Coverage is required

Amount of Flood Insurance = lesser of:

- **Outstanding principal balance of loan(s)**
 - **Maximum amount of insurance available under the NFIP**
-
- **Residential max. \$250,000**
 - **Non-Res max. \$500,000**
 - **Condo is based on number of units**

Risk Rating

2.0

How is Flood Insurance Changing?

- ELEVATION CERTIFICATES NOT REQUIRED
- No more in or out of the mapped floodplain – buildings on opposite sides of the line will pay similar rates unless elevation is different
- Flooding type, Coastal vs Riverine vs Great Lakes, now considered
- Height above local area – urban flooding, frequency of flooding. (Lowest house on the block pays more than higher homes)
- Previous paid flood claims considered
- Replacement cost of home considered, a foot of flooding in \$1 million home costs more to repair than the same flood in a \$150,000 home
- Community Rating Discount applies to all buildings
- Distance to flood source/coast



More Considerations

- Type of occupancy
- Construction Type
- Foundation type
- Ground Elevations
- First Floor Height
- Number of Floors
- Primary residence versus second home or rental home

Replacement Cost Value (RCV) – The cost to replace property with the same kind of material and construction without deduction for depreciation. The building replacement cost value is the cost to replace the building or unit, including, for a building, the cost of the foundation.

Actual Cash Value (ACV) – The cost to replace an insured item of property at the time of loss, less the value of its physical depreciation.

Market Value – The price that the seller is willing to accept, and the buyer is to pay on the open market and in an arm's length transaction. (For the purposes of determining substantial improvement, market value pertains only to the structure in question.)

Substantial Damage – Damage to a structure in a Special Flood Hazard Area (SFHA) for which the total cost of repairs is 50% or more of the structure's market value before the disaster occurred, regardless of the cause of damage.



Countrywide, Non-Leveed, Single-Family Home

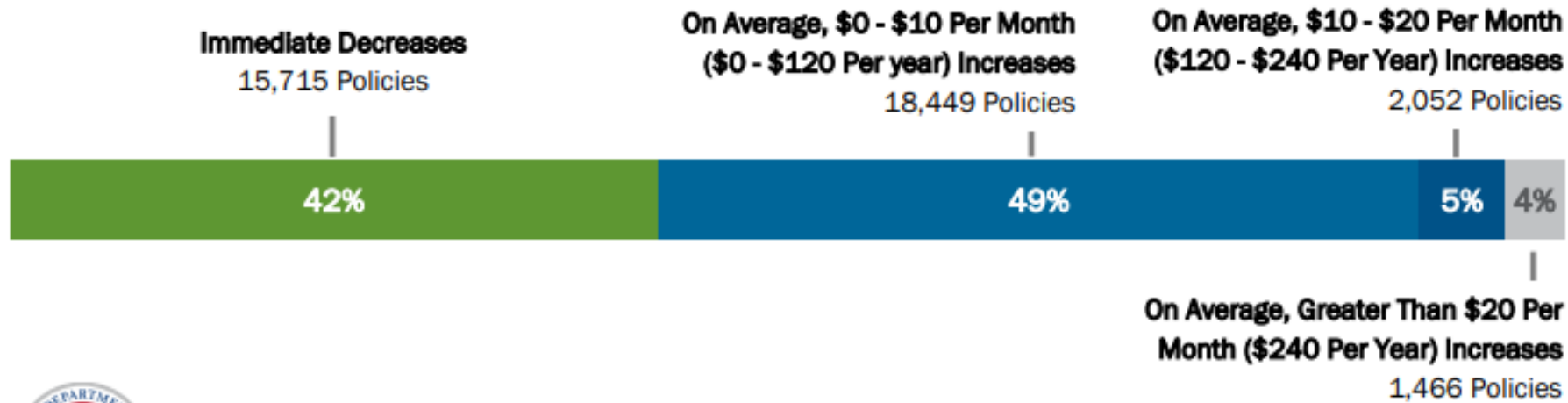
Premium Calculation Worksheet Example 1 Inputs

(1)	(2)
Variable	Value
State	SC
HUC12	030502010605
Barrier Island Indicator	No
MSA	C13
Distance to River (meters)	111.2
Elevation Relative to River (feet)	4.6
Drainage Area (km ²)	1.9
Structural Relative Elevation (feet)	0.9
Distance to Coast (meters)	231.4
Distance to Ocean (meters)	6779.8
Elevation (feet)	7
Distance to Lake (meters) (Note 1)	N/A
Elevation Relative to Lake (feet) (Note 1)	N/A
River Class	Class B
Type of Use	Single-Family Home - Frame
Single Family Home Indicator	Yes
Condo Unit Owner Indicator	No
Floors of Interest	1-2
Foundation Type	Elevated without Enclosure, Post, Pile, or Pier
First Floor Height	5.5
Foundation Design	Open, No Obstruction
Flood Vents	No

Item	Calculation	Inland Flood		Storm Surge		
		Building	Contents	Building	Contents	
A.	Base Rate (per \$1,000 of Coverage Value)	=	2.255	3.611	5.652	8.022
B.	Distance to River	=	1.068	1.068		
C.	Elevation Relative to River by River Class	=	0.567	0.567		
D.	Drainage Area	=	0.744	0.744		
E.	Structural Relative Elevation	=	0.898	0.898		
F.	Distance to Coast by Barrier Island Indicator	=			1.413	1.413
G.	Distance to Ocean by Barrier Island Indicator	=			1.000	1.000
H.	Elevation by Barrier Island Indicator	=			0.730	0.730
I.	Distance to Lake	=				
J.	Elevation Relative to Lake	=				
K.	Territory (HUC12 & Barrier Island Indicator)	=	0.477	0.477	1.092	1.092
L.	Geographic Rate by Peril & Coverage *	Product of A to K	0.435	0.697	6.366	9.036
M.	Type of Use	=	1.000	1.000	1.000	1.000
N.	Floors of Interest	=	0.900	0.900	0.900	0.900
O.	Foundation Type	=	1.000	1.000	1.000	1.000
P.	First Floor Height by Foundation Design & Flood Vents	=	0.561	0.561	0.561	0.561
Q.	M&E above First Floor	=	1.000	1.000	1.000	1.000
R.	Coverage Value Factor	=	1.000	1.000	1.000	1.000
S1.	Deductible & Limit to Coverage Value Ratio *	(Note 1)	1.000	1.000	1.000	1.000
S2.	Deductible to Coverage Value Ratio *	(Note 2)	0.045	0.065	0.035	0.040
S3.	Initial Deductible & ITV	(S1 - S2)	0.955	0.935	0.965	0.960
S4.	Final Deductible & ITV	(Note 3)	0.955	0.935	0.965	0.960
T.	Concentration Risk	=	0.964	0.964	0.949	0.949
U1.	CRS Discount Percentage	=	15.0%	15.0%	15.0%	0.150
U2.	CRS Discount Factor	(1 - U1)	0.850	0.850	0.850	0.850
V.	Rate by Peril & Coverage *	(Note 4)	0.172	0.270	2.502	3.533

NFIP Policies in Force in IL	Properties in IL Not Covered by NFIP Policy	Average NFIP Claim Payout in IL in the Past 10 Years	Average Individual Assistance Claim Payout in IL in the Past 10 Years
38,000	4.8 million	\$17,000	\$2,300

Risk Rating 2.0 in Illinois



How is Flood Insurance Changing?

- [Risk Rating 2.0 State Profiles | FEMA.gov](https://www.fema.gov/risk-rating-2.0-state-profiles)



What can a Community Do?

- Join CRS/Increase CRS Rating
- Adopt and enforce building codes and zoning.
- Be aware of mitigation grants and take advantage of them.
- Work together!
- Provide technical advice
 - Elevation Certificates
 - Building/Rebuilding to reduce flood risk
 - Implement Higher Standards

Elevation Certificate

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)			
C1. Building elevations are based on: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input type="checkbox"/> Finished Construction			
*A new Elevation Certificate will be required when construction of the building is complete.			
C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.			
Benchmark Utilized: _____		Vertical Datum: _____	
Indicate elevation datum used for the elevations in items a) through h) below.			
<input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____			
Datum used for building elevations must be the same as that used for the BFE.			
			Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	_____	<input type="checkbox"/> feet	<input type="checkbox"/> meters
b) Top of the next higher floor	_____	<input type="checkbox"/> feet	<input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	_____	<input type="checkbox"/> feet	<input type="checkbox"/> meters
d) Attached garage (top of slab)	_____	<input type="checkbox"/> feet	<input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	_____	<input type="checkbox"/> feet	<input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	_____	<input type="checkbox"/> feet	<input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	_____	<input type="checkbox"/> feet	<input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	_____	<input type="checkbox"/> feet	<input type="checkbox"/> meters

Expanded Use of Section E under New Rating System

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)			
<p>For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.</p>			
E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).			
a) Top of bottom floor (including basement, crawlspace, or enclosure) is	<input type="text"/>	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the HAG.
b) Top of bottom floor (including basement, crawlspace, or enclosure) is	<input type="text"/>	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the LAG.
E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is	<input type="text"/>	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the HAG.
E3. Attached garage (top of slab) is	<input type="text"/>	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the HAG.
E4. Top of platform of machinery and/or equipment servicing the building is	<input type="text"/>	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the HAG.
E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown. The local official must certify this information in Section G.			
SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION			
<div style="border: 2px solid blue; padding: 10px; font-size: 24px; color: blue;">Now for all Flood Zones</div>			
Address		City	State ZIP Code

Summary

- All buildings are at risk of flooding if it rains enough
- Only buildings in a regulatory floodplain are typically required flood Insurance
- Homeowner policies typically do not cover damages from surface flooding
- Homeowner policies will cover basement flooding from sanitary sewers or sump pump failures with special riders
- Urban flooding caused by storm sewers backing up, street flooding or sanitary backup is not shown on the floodplain maps
- Private flood insurance policies are available but read the fine print



Questions?

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FEMA