

Floodway Permits

IAFSM

March 12, 2024



State Floodway Permit Staff

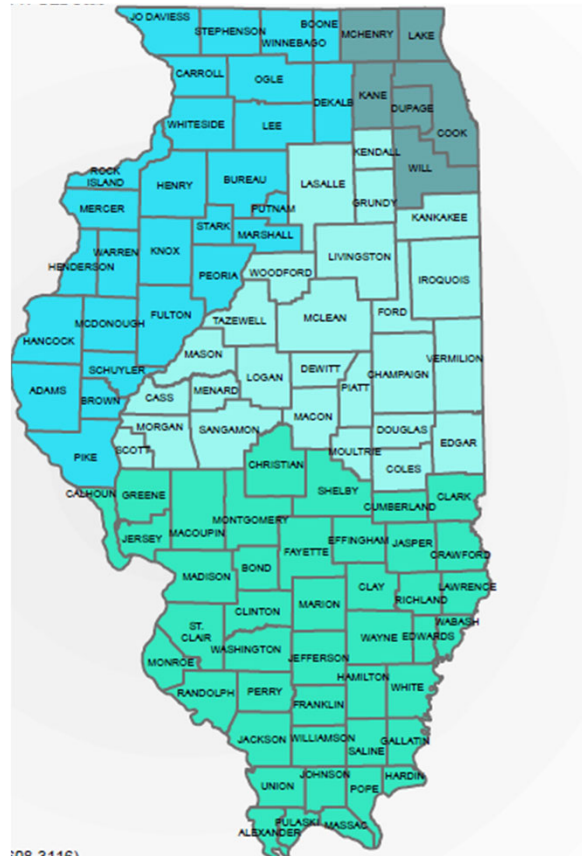
Springfield

Manager – Bill Milner,
P.E., CFM

Northwest – Kristian
Peterson, CFM

Central – William
Lavelle, CFM

South – Jesse Tinch, P.E.,
CFM



Bartlett – NE IL

Manager – Bill Boyd,
P.E. CFM

Heather McGowan,
CFM

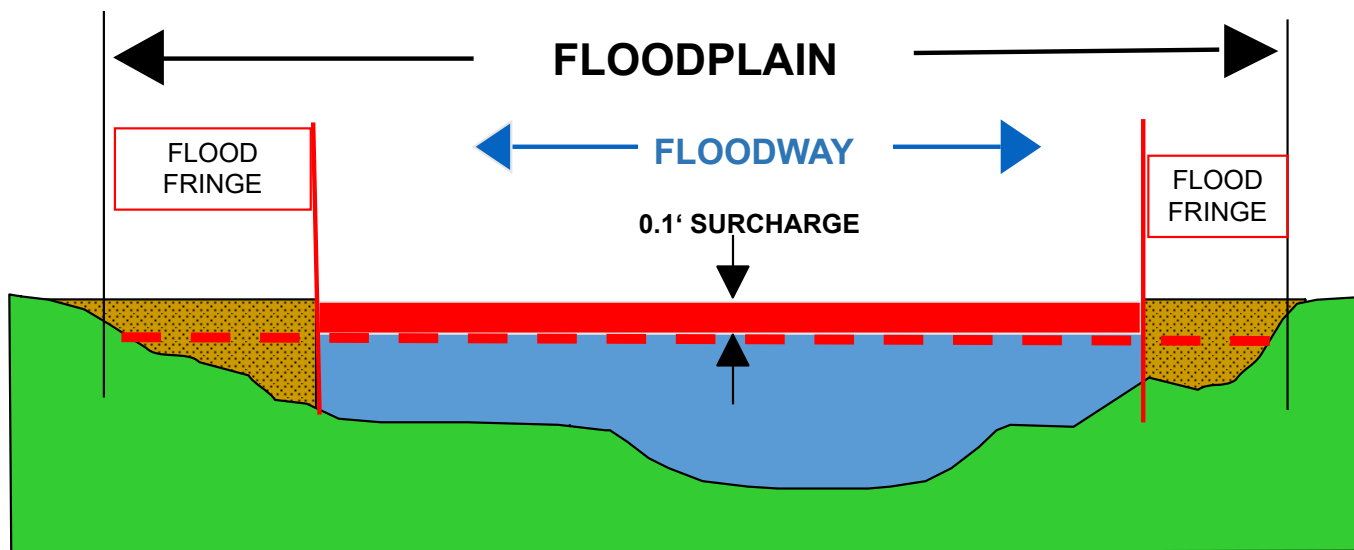
Kevin Hoobler, CFM

Bruno
Athamanathan, CFM

Basic Terms

- Federal Emergency Management Agency (FEMA)
- National Flood Insurance Program (NFIP)
- Flood Insurance Rate Map (FIRM)
- Flood Insurance Study (FIS)
- Floodplain, Regulatory Floodplain, Zone A, AE, AO, AH, V, VE, and Special Flood Hazard Area (SFHA)
- Letter of Map Amendment (LOMA)
- Floodway – portion of the floodplain

How do we get the Floodway in IL?

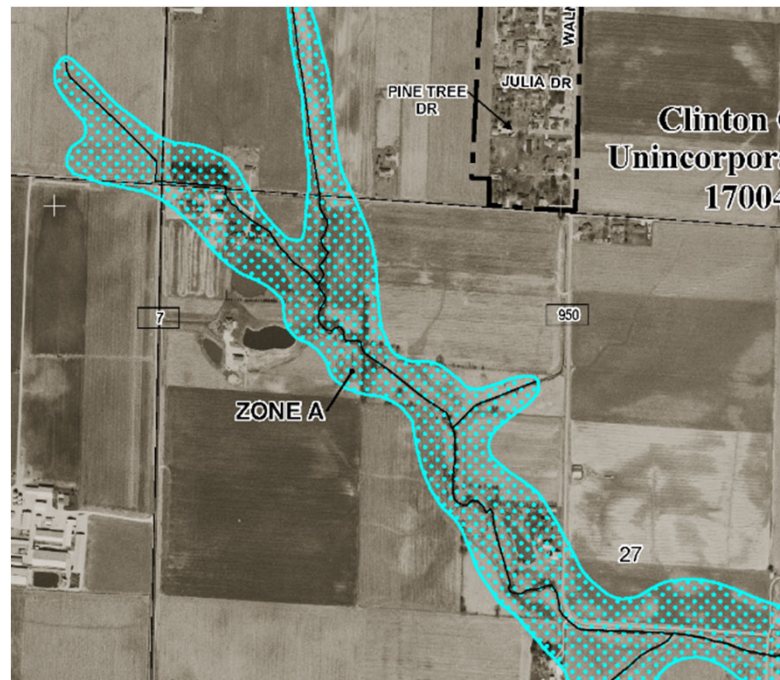


FLOODPLAIN = FLOODWAY + FLOOD FRINGE

**SURCHARGE NOT TO EXCEED 0.1 Ft in Illinois and must keep 90%
floodplain volume**

Where is the Floodway if it Isn't Mapped?

Until a regulatory floodway is determined the entire floodplain is considered the floodway. Any encroachment (generally fill) could cause a rise in the Base Flood elevation



Mapped Floodway

With a mapped floodway, we know if all the fringe is filled, there will be a 0.1 ft increase in the BFE.

That means if we allow the fringe to be filled and allow extra floodway encroachments to be allowed with another 0.1 ft increase we would be seeing a 0.2 ft rise.

In NE IL most communities require that the flood storage volume of the fringe be maintained at a ratio of at least 1 to 1. This is not the case throughout the state.

Bigger problem unanswered is can we really model the floodplain this accurately?



What do other state's do? No Rise Certification

FEMA says: The community's permit file must have a record of the results of this analysis, which can be in the form of a No-Rise Certification. This No-Rise Certification must be supported by technical data and signed by a registered professional engineer. The supporting technical data should be based on the standard step-backwater computer model used to develop the 100-year floodway shown on the Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM).

MINNESOTA "NO-RISE" CERTIFICATION

This is to certify that I am a duly qualified professional engineer licensed to practice in the State of Minnesota.

It is further to certify that the attached technical data supports the fact that the proposal to _____

_____ (development name / short project description)

will not impact the floodway width or 100-year flood elevation (will not raise or lower by more than 0.00 feet) on _____ (Name of stream) at published sections in the Flood Insurance Study for _____ (Name of Community) dated _____ (Study Date) and will not impact the 100-year flood elevation (will not raise or lower by more than 0.00 feet) at unpublished cross-sections in the vicinity of the proposed development / project.

Attached are the following documents that support my findings:

Date: _____

Signature: _____

{SEAL}

Title: _____

What is the difference between a state floodway permit and a local permit?

Voluntary federal insurance program, administered by FEMA, that provides:

- Flood insurance for property owners and renters in participating communities
- Access to grants and disaster assistance for damages in the regulatory floodplain
- Maps and studies of flood hazards

To join a community must:

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



Community's Purpose in Floodplain Management

- Ensure new buildings and substantially improved buildings are protected from flood risk
- Ensure new development does not increase flood risk to themselves and others
- Ensure compliance with the rules and regulations of the NFIP codified as 44 CFR 59-79



Local Community Role in the NFIP

The local Floodplain Manager's duties are broad and many:

- Permit all Development in the regulatory floodplain (1% - A or V Zones)
- Check all permits to see if the site is in the floodplain (interior work too)
- Issue permits that meet the code and inspect work for compliance
- **If in the floodway refer to a PE for review and require a state permit, if site under state jurisdiction**
- Enforce substantial improvement requirements
- Make substantial damage estimates and enforce compliance



Local Community Role in the NFIP (cont.)

More Floodplain Manager Duties:

- Issue violation notices and ENFORCE your code
- Maintain any floodplain building permit records PERMANENTLY, including site grading plans, subdivision grading plans, and elevation certificates
- Inspect and document post–flood (or other source) damages
- Inspect the floodplain – looking for violations

Permitting - How is Development Defined?

Any man-made change to real estate including, but not necessarily limited to:

- Demolition, construction, reconstruction, repair, placement of a building, or any structural alteration to a building;
- substantial improvement of an existing building;
- installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than one hundred eighty (180) days per year;
- installation of utilities, construction of roads, bridges, culverts or similar projects;



How is Development Defined? (cont.)

- redevelopment of a site, clearing of land as an adjunct of construction
- construction or erection of levees, dams, walls, or fences;
- drilling, mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface;
- storage of materials including the placement of gas and liquid storage tanks, and channel modifications or any other activity that might change the direction, height, or velocity of flood or surface waters.

“Development” does not include resurfacing roads, or gardening, plowing, and similar practices that do not involve filing, grading, or construction of levees.



When is map correction (LOMR) required?

44 CFR 65.3

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.

The Community is responsible for keeping floodplain maps accurate.



What does that mean?

When a community issues permits for development that increases or decreases the Base Flood Elevation or changes any mapped floodway, the community is ultimately responsible for paying for the LOMR.

Examples are:

- Roads and bridges
- Flood control
- New development
- Any encroachment into floodplain

A community should require a CLOMR before the development begins and get security to cover the cost for the LOMR.

The state floodway rules don't always require the CLOMR/LOMR.



What does 44 CFR 60.3d say about Floodways? AE w/ Floodway

- 3) **Prohibit encroachments, including fill**, new construction, substantial improvements, and other development **within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels** within the community during the occurrence of the base flood discharge;
- 4) Notwithstanding any other provisions of § 60.3, a community **may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision**, fulfills the requirements for such revisions as established under the provisions of § 65.12, and receives the approval of the Federal Insurance Administrator.

Local Ordinance requires and floodway encroachment into the floodway can not cause a rise unless a CLOMR/LOMR is issued. If existing buildings are affected the CLOMR/LOMR will not be approved.



What does 44 CFR 60.3c say about Floodways? Zone AE no floodway

For a floodplain with no floodway yet designated:

10) ...that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1–30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot (0.1 ft in IL) at any point within the community.

This is a Zone AE with no floodway and would fall under the state's 3700 Rule (if jurisdictional limits are met). Again, State allows up to 1 ft rise for roads if no structures impacted.

Local regulations limit increase to 0.1 ft. and must combined existing and anticipated development.

If over 0.1 ft must require a CLOMR/LOMR.



What does 44 CFR 60.3b say about Floodways? (Zone A)

- 3) Require that all new subdivision** proposals and other proposed **developments** (including proposals for manufactured home parks and subdivisions) greater than **50 lots or 5 acres**, whichever is the lesser, **include within such proposals base flood elevation data**;
- 4) Obtain, review and reasonably utilize any base flood elevation and floodway data available** from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), **(d)(2) and (d)(3)** of this section;

This is a Zone A with no floodway and would fall under the state's 3700 Rule (if jurisdictional limits are met). State allows for increases in the BFE of 0.1 and even 0.5 and 1.0 foot for roads over "natural condition".

But can a Local permit allow a rise under your rules? If there is no floodway, your code only allows a 0.1 ft rise. Again, local rules are more restrictive than State. CLOMR/LOMR required if more than 0.1 ft.

What needs a Permit?

- Any development defined in the mapped 1% floodplain – Zone A, Zone AE, Zone AO, Zone AH, and Zone V/VE
- Most ordinances – Development of a critical facility in the 1% and 0.2% chance floodplain
- Development includes repair or damages and interior improvements that
- Substantial damage repairs/substantial improvements cannot be approved unless the mitigation plan to elevate or floodproof (non-residential) is included



State Floodway Regulations - Part 3700 Rule

- FOR WATERWAYS WITH 1 SQ MI URBAN/10 SQ MI RURAL DRAINAGE AREA
- Project Channel Conveyance must be maintained
- List of exempted activities: maintenance, remove culverts
- Allowances for New Bridges to increase the water level by < 0.1-foot
- Allowances for Replacement Bridges =>conveyance, damage assessment
- **Statewide Permits** for minor construction may apply

THIS IS NOT THE LOCAL REGULATIONS.

State jurisdiction stops at 1 sq mile/ 10 sq. miles



IDNR/OWR Floodway Permit Program (Part 3700 Rules)

Two types of **Part 3700 Rule Permits** offered:

1. Statewide Permit

Statewide Permits are pre-
authorizations of certain minor
projects which are permissible per
the Part 3700 rules.

[A Joint Permit Application Form
submittal is usually not needed.](#)

**If the state issues a statewide
floodway permit, YOU MUST
ISSUE A LOCAL PERMIT AND
YOU MUST INSPECT FOR
COMPLIANCE!**

You must make certain that the
work is not causing any rise in
the BFE. The state has selected
projects that should not have an
impact if the conditions are
followed but you must make
sure that is truly the case.

IDNR/OWR Floodway Permit Program (Part 3700 Rules)

Current Active Statewide Permits

- SWP 2 - Bridge and Culvert Crossings of Streams in Rural Areas
- SWP 3 - Mooring Facilities Used Exclusively for Barge Fleeting Purposes
- SWP 4 - Aerial Utility Crossings
- SWP 5 - Minor Boat Docks**
- SWP 6 - Minor Non-Obstructive Floodway Construction**
- SWP 7 - Outfalls**
- SWP 8 - Underground Pipeline and Utility Crossings (>3 ft. below channel)**
- SWP 9 - Minor Shoreline, Stream Bank, and Channel Protection activities**
- SWP 10 - Accessory Structures and Additions to Existing Residential Structures
- SWP 11 - Minor Maintenance Dredging
- SWP 12 - Bridge and Culvert Replacement Structures**
- SWP 13 - Temporary Construction Activities
- SWP 14 - Special Uses of Public Waters

Example Special Conditions Statewide #7 - Outfalls

1. An **outfall structure**, including any headwall or end-section, **shall not extend riverward or lakeward of the existing adjacent natural bank slope** or adjacent bank protection.
2. The velocity of the discharge shall not exceed the **scour velocity** of the channel soil, unless channel erosion would be prevented by the **use of riprap** or other design measures.
3. **Outlets** from drainage ditches **shall not be opened** to a stream **until the ditch is vegetated or otherwise stabilized** to minimize stream sedimentation.
4. Disturbance of streamside vegetation shall be kept to a minimum during construction to prevent erosion and sedimentation. **All disturbed floodway areas, including the stream banks, shall be restored to their original contours and seeded or otherwise stabilized upon completion of construction.**

The community must make sure these conditions are met. You are making sure no fill is added and no obstructions are added to the floodway.

IDNR/OWR Floodway Permit Program (Part 3700 Rules)

Two types of **Part 3700 Rule Permits** offered:

2. Formal Permit

Formal Permits are needed for significant projects which do not meet a Statewide Permit. These projects generally require an extensive project review of hydrologic & hydraulic engineering data.

Examples: New Bridges and Culverts, Levees

If the state issues a formal permit, YOU MUST ISSUE A LOCAL PERMIT AND should have a copy of the same analysis in your file.

YOU MUST REVIEW FOR COMPLIANCE WITH YOUR CODE!

The State does not look for a rise downstream!

The State has no requirement for compensatory storage, freeboard, flood openings, etc.

44 CFR 60.3

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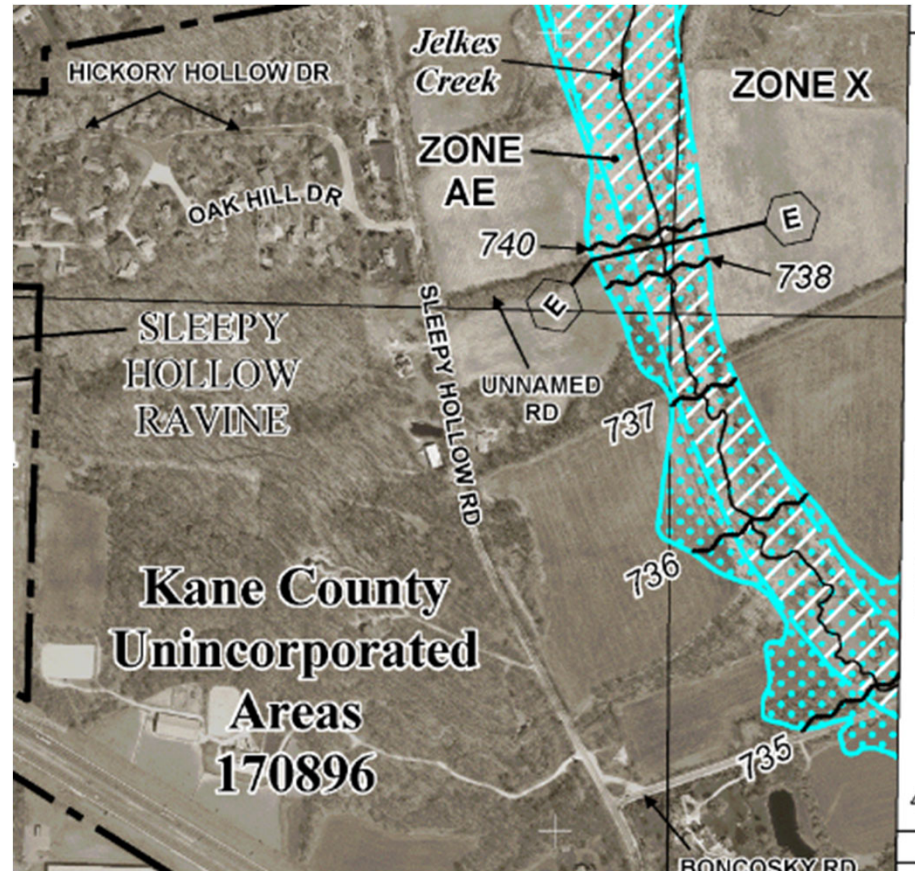
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Floodway Regulations NE IL - Part 3708 Rule

- Regulates construction in Floodways of River Lake and Streams in NE IL - Cook, DuPage, Kane, McHenry, Lake, and Will counties
- **Applies to mapped floodways, Zone AE** with a floodway on the Flood Insurance Rate Maps



IDNR/OWR Floodway Permit Program (Part 3708 Rules)

Regional Permit No. 3 – Authorizes:

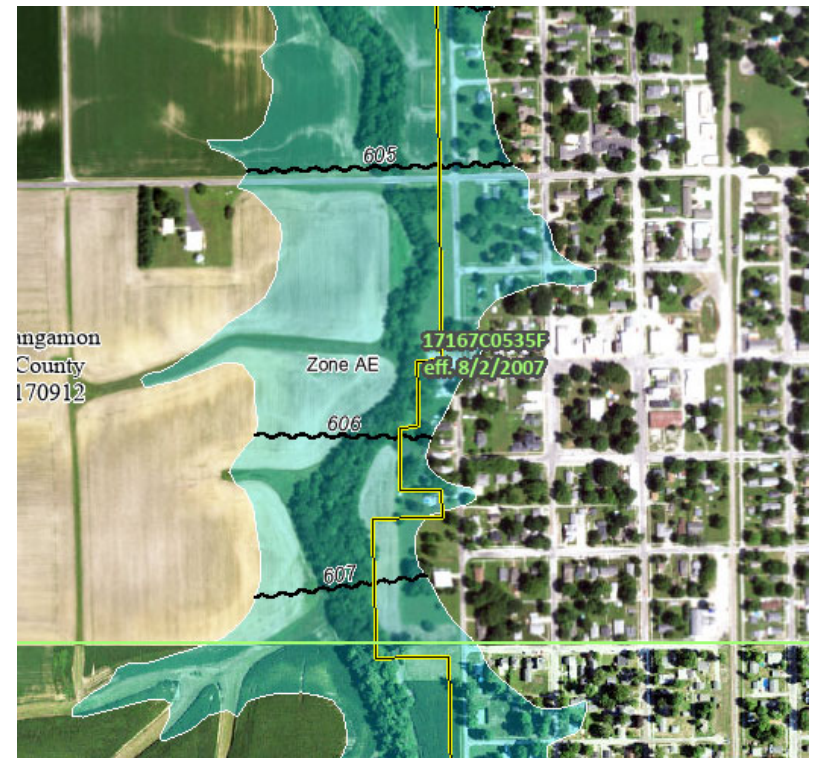
underground and overhead utilities,
storm and sanitary sewer outfalls,
sidewalks, patios, athletic fields, playground equipment, and
streambank protection activities.

Again, the community must make sure the conditions in the Regional Permit are met. You are making sure no fill is added and no obstructions are added to the floodway.

When is a floodway application required?

Submit if anywhere in the floodplain of a stream without a delineated floodway if the drainage area criteria is met.

Can always email IDNR for confirmation.



State Floodway Permitting - Jurisdiction

The rules and permit information can be found at:

<https://www2.illinois.gov/dnr/WaterResources/Pages/PermitPrograms.aspx>

IDNR /OWR Jurisdictional Stream IDNR/OWR has jurisdiction over any stream serving a tributary area of:

- 1 sq. mi. (640 acres) or more in an urban/urbanizing area
- 10 sq. mi. (6,400 acres) or more in a rural area

Jurisdiction not based on FEMA floodplain maps



Where is the Floodway Requiring a State Permit?

A 'Regulatory Floodway' means the channel of a river or other watercourse and the adjacent land areas that must be reserved to discharge the base flood without increasing the water surface elevation more than a designated height (IL = 0.1')

Mapped Floodway shown on the FIRM



Floodplain w/out a floodway shown

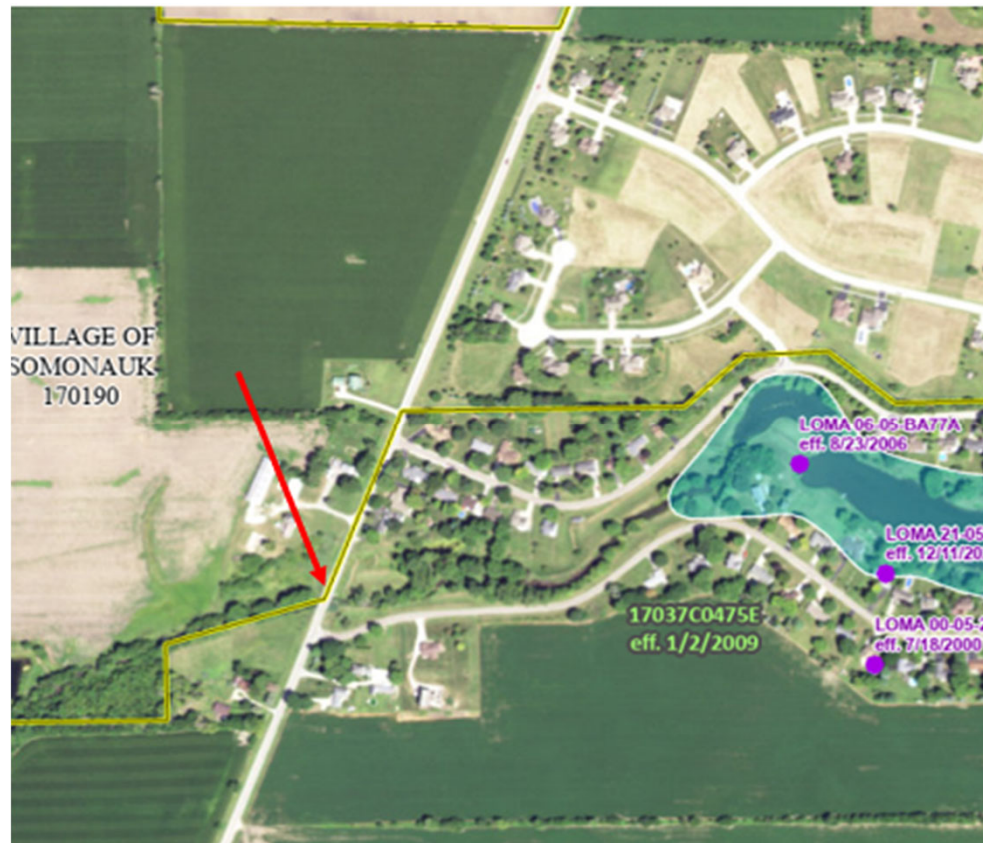


Stream with no floodplain shown



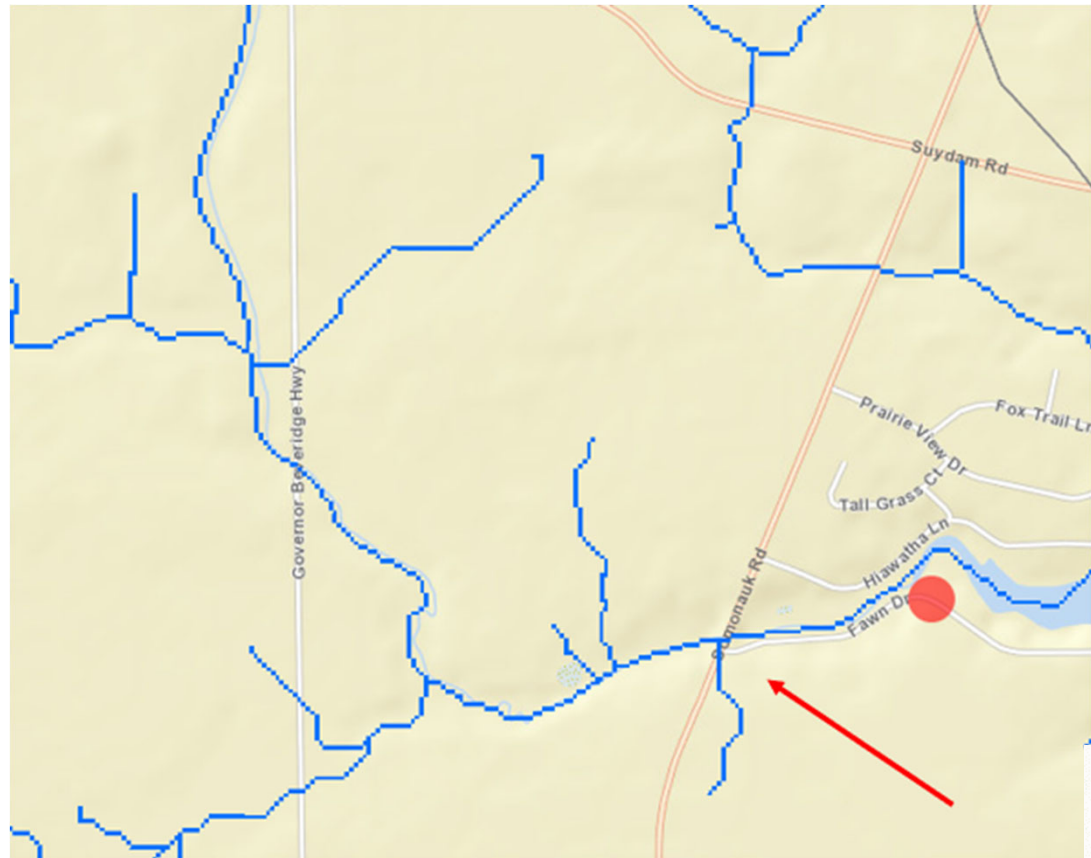
Drainage Area Example - Is a State Floodway Permit Required?

- Bridge project at Somonauk Rd.
- Nothing on FIRM but a defined channel is present
- What is the drainage area?



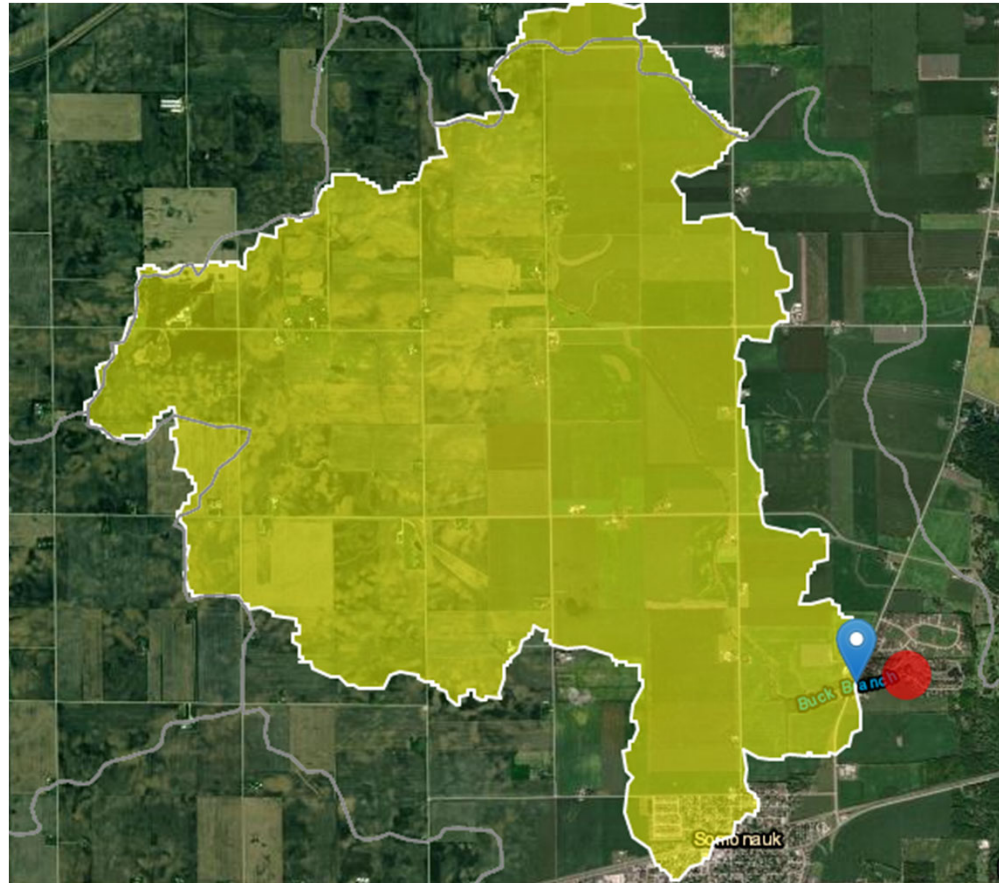
How is the State Jurisdiction Determined?

- Calculate drainage area to downstream end of the project site
- USGS StreamStats <https://streamstats.usgs.gov/ss/> may be used
- Can also calculate using state LiDAR and GIS to map the watershed
- Areas with strip mines, quarries, or ill-defined channels can't be mapped in StreamStats



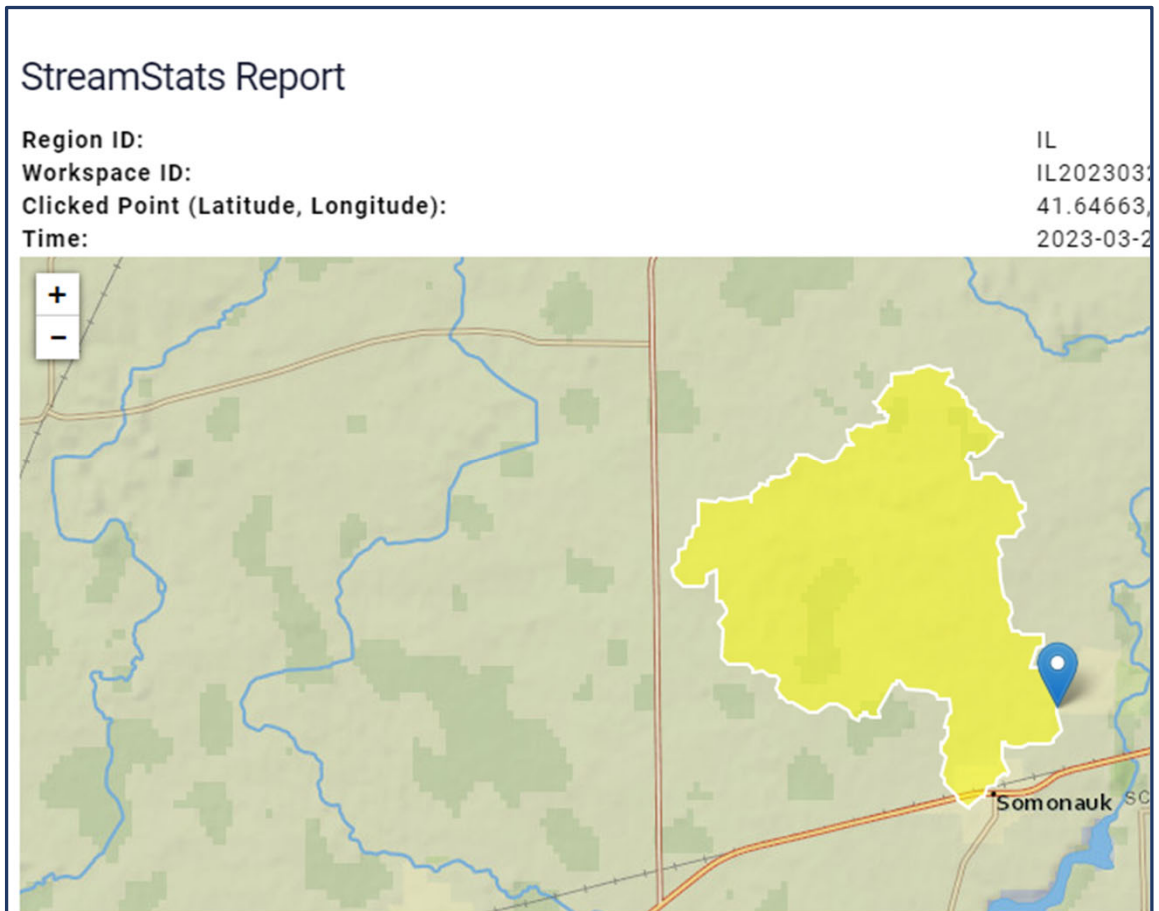
StreamStats Drainage Area Map

- Use report function to calculate area
- Can also calculate estimated flows



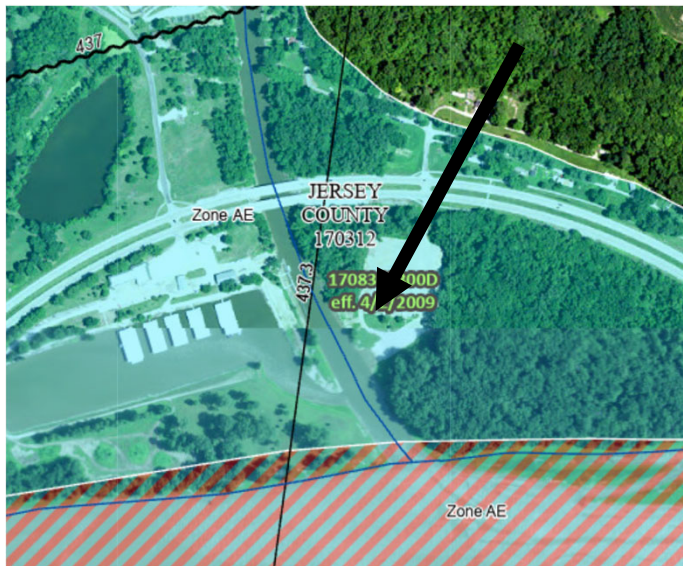
StreamStats Report

Although there is no floodplain shown on the FIRM the drainage area is 10.11 sq. miles.

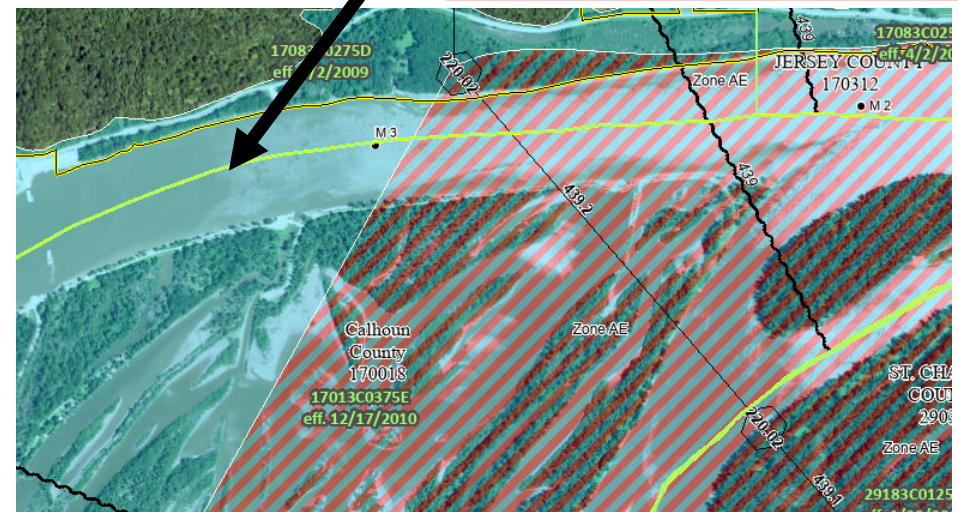


Caution— Watch for floodplains that are tributary to larger river with a floodway. The larger river has a mapped floodway, but the smaller tributary has no mapped floodway. State a local permit needed to address the flow in this channel.

Tributary to the Mississippi



Illinois River @ the Mississippi.
The IL River has no mapped floodway in Calhoun County



Recap - Local NFIP Community Responsibilities

- Must Issue a local floodplain development permit
- If a Statewide Permit/Regional Permit #3 applies, no OWR letter is required. The local permit review should confirm all conditions of the Statewide Permit or Regional Permit #3 apply.
- If an individual permit is required, the local permit must wait until IDNR/OWR authorizations is issued.
- The local community should inspect the site during and at the end of the project. If anything changes such that the permit conditions are no longer being met the work should be stopped and OWR contacted to discuss changes to the permitting status of the project.

Question and Answer Session

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A graphic with a dark blue background and diagonal rain streaks. At the top, the text 'Today's rain.' is in white and 'Tomorrow's flood.' is in yellow. Below this is a light blue box with the text 'GET FLOOD INSURANCE'. At the bottom left are the logos for FEMA (Department of Homeland Security) and the National Flood Insurance Program. On the right is a yellow raincoat.

**Today's rain.
Tomorrow's flood.**

GET FLOOD INSURANCE

 **FEMA** 
NATIONAL FLOOD
INSURANCE PROGRAM

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