Floodplain Management
Local Floodplain Administrator’s Manual
2006 Edition

FLOODPLAIN MANAGEMENT
In Northeastern Illinois

The “Blue Book”

The “Green Book”
Is it in a FLOODPLAIN?

- Is the project site in a floodplain? (step 1)
  - NO: Permit not required
  - YES: Is the project a floodplain development? (step 2)
    - NO: Permit not required
    - YES: Is the project in a floodway (or floodplain with no identified floodway)? (step 3)
      - YES: Further steps for floodway considerations
Mapping Example

- Select Correct FIRM Panel
Mapping Example

- Find General Location

A 150 ft by 150 ft corner lot on the North side of Butler Dr. and on the West side of Heyden Dr.
Mapping Example

- Identify Specific Location

A 150 ft by 150 ft corner lot on the North side of Butler Dr. and on the West side of Heyden Dr.
Mapping Example

- Identify Specific Lot

A 150 ft by 150 ft corner lot on the North side of Butler Dr. and on the West side of Heyden Dr.
Is the Site in the Floodplain?

What risk zone is this site located in?

Zone A3

Is this site in the 1% floodplain?

YES – Any risk zone beginning with the letter “A” is the 1% floodplain.
Is it DEVELOPMENT?

- Is the project site in a floodplain? (step 1)
  - NO: Permit not required
  - YES
    - Is the project a floodplain development? (step 2)
      - NO: Permit not required
      - YES
        - Is the project in a floodway (or floodplain with no identified flood)?
          - NO: Permit not required
• Construction of new buildings
• Addition or substantial improvements to existing buildings
• Manufactured (mobile) homes and RVs
• Subdivisions or commercial developments
• Storage of materials
• Fill, grading, excavating
• Fences, culverts, bridges, roads
• And ANYTHING else that changes the floodplain
Is it in a FLOODWAY?

- Is the project a floodplain development? (step 2)
  - YES
    - Is the project in a floodway (or floodplain with no identified floodway)? (step 3)
      - YES
        - Is the project authorized by an IDOT/OWR statewide permit
      - NO
        - Has IDNR/OWR approved the project
          - NO
            - Hold until state approval is obtained
          - YES
            - Does the project include a building? (step 4)
              - YES
                - Will project increase drainage or flow on neighboring properties
              - NO
                - Issue local permit
            - NO
              - Issue local permit
State Permit required in a:

Mapped Floodway

Or

Floodplain with no identified Floodway
Mapping Example

Is the Site in the Regulatory Floodway?

Map type is the new FIRM (no separate floodway map).

NO – If it was located in a regulatory floodway on Flat Creek it would have been shown in the “hatched” area.
Does it have a state permit?
IDNR/OWR Permit Programs
Adm. Rules

✓ Construction in Floodways of Rivers, Lakes and Streams: Part 3700 Rules

- Regulations for Dam Construction: Part 3702 Rules
- Regulations of Public Waters: Part 3704 Rules

✓ Floodway Construction in Northeastern Illinois: Part 3708 Rules

- Allocation of Water from Lake Michigan: Part 3730 Rules
IDNR/OWR Floodway Permit Program (3708 Rules)

- Appropriate Uses
- Floodway Map Revisions
- Delegation
  - Municipalities/Counties
  - IDOT Agreement
IDNR/OWR Permit Program Process

Joint Application Form

Complete and Submit Joint Application Form
IDNR/OWR Floodway Permit Program

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
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

Can be found at
https://www.dnr.illinois.gov/WaterResources/Pages/PermitsStatewideRegionalGeneral.aspx
It is a BUILDING?

Diagram:

- **Yes**: Does the project include a building? (step 4)
  - Yes: Will project increase drainage or flow on neighboring properties?
    - Yes: Require changes or deny permit
    - No: Issue local permit
  - No: IDOT/DWR statewide permit
  - No: approved the project
    - Yes: approval is obtained
- **No**: Issue local permit
Building?
Got BFE?

- Does the project meet flood protection requirements? (step 0)
  - NO → Require base flood elevation determination
  - YES → Has base flood elevation been determined? (step 5)
    - YES → Require changes or deny permit
    - NO → Require base flood elevation determination
Mapping Example

- Determine BFE Using FIRM

1. Determine flow direction.
2. Draw upstream BFE line for site.

BFE = 455 ft (by FIRM).
Mapping Example

- Determine BFE Using FIS Flood Profile

1. Still need to determine flow direction and draw BFE line.

Now determine nearest landmark to site

A. Road crossings
B. Cross Sections

What is the nearest landmark?

Cross Section “D”
Mapping Example

Determine Distance to closest Landmark

- Measure the distance to the nearest landmark along the centerline of the stream.

Distance between Cross Section “D” and site = 5 X 125 ft + 100 ft = 725 ft +/-
Mapping Example

- Determine BFE

1. Measure downstream from X-Section “D” 725 ft or 5.8 “squares” or “boxes”.

2. Extend measurement line up to the 1% water profile.

3. Measure horizontally over from the intersection of 1% profile to determine BFE.

BFE = 454.6 ft (Nearly a half foot lower than FIRM!).
This Flood County, USA’s floodplain ordinance requires all development to be one-foot above the determined BFE, at what elevation could the lowest floor be at this site?

Lowest Floor Elevation = 455.6 feet (By FIS)

Or LFE = 456 feet (If rounding up)
Flood Protection Met?

- Has base flood elevation been determined? (step 5)
  - NO: Require base flood elevation determination
  - YES: Does the project meet flood protection requirements? (step 6)
    - YES: Issue permit
Building Protection is a Priority.

New Buildings in a Floodplain must be

- Elevated on Fill
- Elevated on flow-thru walls
- Elevated by poles, piers, or columns
Strong Regulations Prevent New Damage
Got Elevations?

- Does the project meet flood protection requirements? (step 6)
  - YES
    - Issue permit
      - Inspect and require as-built elevations (step 7)
      - Maintain all records (step 8)
The FEMA Elevation Certificate
We will be watching! 😊
I’m here to see your Floodplain permit files and Elevation Certificates.

100+ community visits per year.

15+ workshops per year.

5,000 technical assistance per year.

Illinois leads the nation in communities on probation or suspended from the National Flood Insurance Program.

7 communities nationwide kicked out of NFIP. 5 are in Illinois! We are serious!
What the...#@*%$*@!

Outside: Flow thru vents

Inside: Doors, windows, cabinets, restroom, no vents and finished interior.
The feather in our cap...

Illinois is ranked #1 in the nation for the fewest number of flood insurance claims on post-FIRM (newer) structures. (1%).

(Some states have as much as 50% of flood claims taking place on newer buildings)
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