The Do’s and Don'ts for an IDNR/OWR Floodway Construction Permit

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IAFSM Conference 2020
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  https://www.dnr.illinois.gov/WaterResources/Pages/default.aspx
The Do’s and Don’ts for Permitting
Overview

• Brief Overview of permitting
• What to include with an application – *The Do’s*
• What not to include – *The Don’ts*
• Hydrology
• Hydraulics
IDNR/OWR Permit Programs
Administrative 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
The IDNR/OWR exercises jurisdiction over **construction** in the **floodway** of watercourses which have a drainage area of:

- 1 square mile or more (640 acres) in an urban area, or
- 10 square miles or more (6400 acres) in a rural area.
- Consult with IDNR/OWR for assistance with determining jurisdiction.
State Permit required in a:

Mapped Floodway

Or

Floodplain with no identified Floodway

Images from FEMA NFHL viewer
Resources for Determining Jurisdiction

- **StreamStats (USGS)**
  - [https://water.usgs.gov/osw/streamstats/](https://water.usgs.gov/osw/streamstats/)
  - Delineates watershed (drainage area) from a point

- **FEMA**
  - Map Service Center ([https://msc.fema.gov/portal](https://msc.fema.gov/portal))
    - Hard copy FIRM (pdf)
  - National Flood Hazard Layer
Two types of Permits are offered:

- **Statewide Permit**
  - Statewide Permits are pre-authorizations of certain minor projects which are permissible per the Part 3700 rules.
  - A permit application submittal is usually not needed.

- **Individual Permit**
  - Individual Permits are needed for significant projects which do not meet a Statewide Permit. These projects generally require an extensive project review of engineering data.
  - Examples: New Bridges and Culverts, Levees
IDNR/OWR Floodway Permit Program
(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
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
IDNR/OWR Public Waters Permits (Part 3704 Rules)

- Activities in Public Waters
- Navigation impacts
- Encroachments
- Impairment of Public’s rights, interests and uses
- Impairment of Natural Resources
IDNR/OWR Public Waters Permits
(Part 3704 Rules)

- Natural Waterways
- Waterways Improved for Navigation
- Man-Made Waterways
- Appendix A – List of all Public Waters in IL
- Regional and Statewide Permits may be applicable
- Formal Permit requires a separate fee
Submitting a Permit Application

- Complete and Submit Joint Application Form.
- Application Form and instructions can be found at https://www.dnr.illinois.gov/WaterResources/Pages/PermitApplicationandInstructions.aspx
Application Form

- Important Information
  - All of it

- Key Items
  1. Applicant’s name with contact information
  2. Co-Applicant
  3. Agent’s name
  4. Statement of Authorization – needed if applicant wants agent to act on their behalf
5. Project Description can be included in narrative if preferred

6. Purpose of Project

7. Signature – applicant (or agent) and co-applicant
The Do’s

Items to Include With an Application

• Location Map
• FIRM
• Site Plan
• Design Drawings
• Grading Plan – if re-grading is proposed
• Explain how project meets applicable rules
• Include support information for computations and modeling
Location Map

- Show project site
- Include road names
- Show stream with name
- Show/name nearby municipalities
Site Plan

- Project Layout
- Show property lines (if applicable)
- Show stream channel (if located on subject property)
Design Drawings

- Plan, elevation, cross-section views of bridges, culverts and other structures
- Size, length, width, type of structure
- Cross-sections – channel work, excavation, or fill projects
Grading Plan

- Existing and proposed contour lines shown and labeled
- Proposed grades must “tie in” with existing grades on the plans
- Reference marks and elevation datum
Items That Are Helpful to Include with an Application

- Narrative
- H&H Study & Modeling
- Engineering Report for H&H Study
Narrative

- Recommended for most projects
- Essential for complex projects
- Detailed project description
- Explain how project meets applicable rules
- Include support information for computations and modeling
Engineering Report

- Not required, but usually very helpful
- Do not bury application form in report
- Include narrative, maps, summary tables, computations, models, photographs, other support information
The Don’ts

Do Not Submit…

• More than one copy of the application form, engineering report, etc.

• Corps of Engineers, IEPA, and Applicant’s copy of the application form

• Wetland reports needed by COE

• Full sized engineering drawings – 11x17 is fine

• Soil boring reports*

• Contract documents *

* May be needed for a dam safety submittal.
Hydrology

- IDNR/OWR will use the discharge information in the FEMA Flood Insurance study if it exists.
- If no study or streamgage analysis, then StreamStats is acceptable.
- If a study exists and you want to use different values – provide reasoning in the narrative.
- H&H model or streamgage analysis preferred.
- Report describing values and methodology.
Hydrologic Modeling

Precipitation Data

• Updated Bulletin 70 – March 2019
• https://www.ideals.illinois.edu/handle/2142/103172
Hydraulic Modeling

- Accepted engineering practices
- Ineffective flow boundaries
  - Include upstream/downstream of bridge/culvert cross-sections to represent the areas of confined flow conveyance.
  - Include on upstream/downstream cross-sections till full flow sections.
- Contraction and expansion coefficients
  - Change upstream and downstream of bridges/culverts.
Hydraulic Modeling

- Do not include entire stream if only looking at a little section
- Make sure the model extends far enough upstream and downstream of project
- Work map showing cross-section locations with labels
- Include 100-year flood event and other events, such as 10-year and 50-year flood events
Hydraulic Modeling

• Keep n-values the same between existing and proposed conditions
  • If need to change them provide justification – i.e. change in land cover

• Channel excavation
  • Allow half channel depth excavation
  • Assumes the bottom half of the channel will silt in
In Summary

• Key Points
  - Submit a completed Application
  - Do submit the information necessary for a complete review
  - Don’t submit extra information that is not needed or multiple copies

• The less we have to make an additional information request for, the expedited the review can be
Questions

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