

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



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IAFSM Conference 2020



IDNR-OWR Offices



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Regulatory Programs Section
2050 W. Stearns Road
Bartlett, IL 60103

Phone 847/608-3116
Fax 847/931-2037


- **Downstate Illinois**
Regulatory Programs Section
One Natural Resource Way
Springfield, IL 62702-1271

Phone 217/785-8100
Fax 217/785-5014

- **Web Site:**

<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

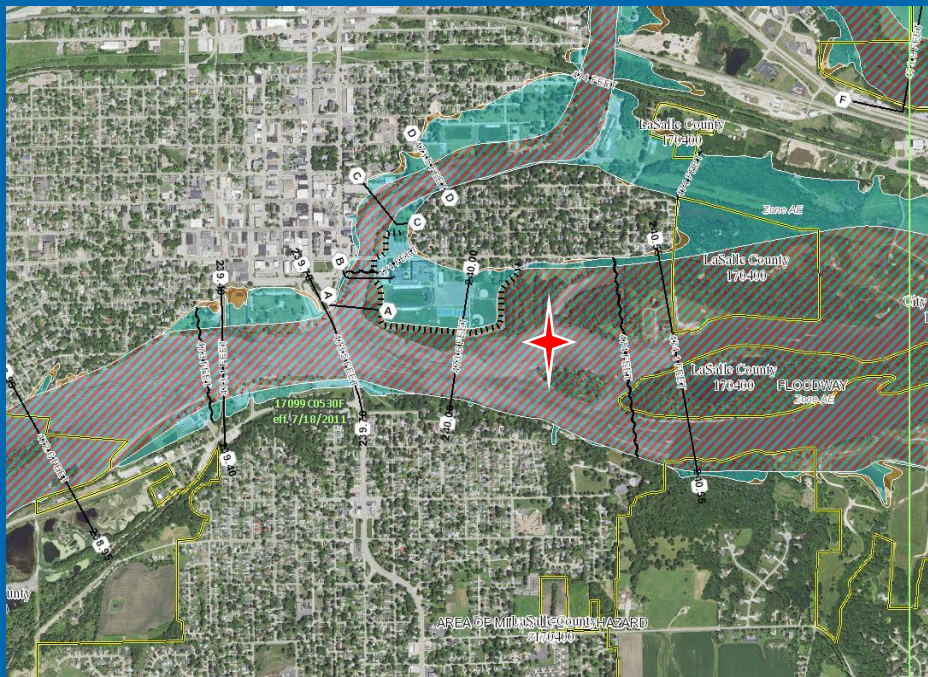
Administrative Rules

- 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

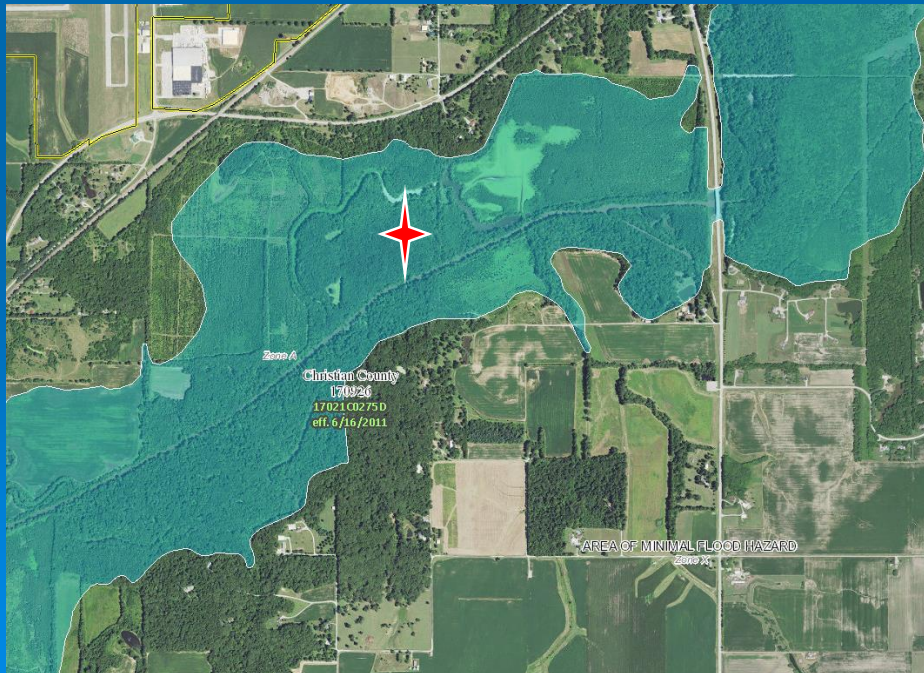
IDNR/OWR Floodway Permit Program (3700 Rules)

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/>
 - Delineates watershed (drainage area) from a point
- FEMA
 - Map Service Center (<https://msc.fema.gov/portal>)
 - Hard copy FIRM (pdf)
 - National Flood Hazard Layer
 - FEMA Web Portal (<https://fema.maps.arcgis.com/home/index.html>)
 - KMZ file (<https://hazards.fema.gov/femaportal/wps/portal/>)

IDNR/OWR Floodway Permit Program (3700 Rules)

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

**ILLINOIS
PUBLIC WATERS**



Legend

— Public Water
County Boundary

Public Waters are defined in 17 USC, Admin. Code, Chapter 1, Section 1704 as all lakes, rivers, streams and waterways which are or were navigable and are open or dedicated to public use including all bays, sloughs, backwaters and submerged lands connected by water to the main channel or body of water during normal flows or stages. The Public Waters shown on the map are identified in 17 USC, Admin. Code, Chapter 1, Section 1704, Appendix A, Public Bodies of Water.



Office of
Water Resources
February 8, 2014

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

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>

JOINT APPLICATION FORM FOR ILLINOIS					
ITEMS 1 AND 2 FOR AGENCY USE					
1. Application Number		2. Date Received			
3 and 4. (SEE SPECIAL INSTRUCTIONS) NAME, MAILING ADDRESS AND TELEPHONE NUMBERS					
3a. Applicant's Name		3b. Co-Applicant/Property Owner Name (If needed or if different from applicant)		4. Authorized Agent (an agent is not required)	
Company Name (if any):		Company Name (if any):		Company Name (if any):	
Address:		Address:		Address:	
Email Address:		Email Address:		Email Address:	
Applicant's Phone Nos. w/area code		Applicant's Phone Nos. w/area code		Agent's Phone Nos. w/area code	
Business:		Business:		Business:	
Residence:		Residence:		Residence:	
Cell:		Cell:		Cell:	
Fax:		Fax:		Fax:	
STATEMENT OF AUTHORIZATION					
I hereby authorize, _____, to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.					
Applicant's Signature _____ Date _____					
5. ADJOINING PROPERTY OWNERS (Upstream and Downstream of the water body and within Visual Reach of Project)					
Name		Mailing Address		Phone No. w/area code	
a. _____		_____		_____	
b. _____		_____		_____	
c. _____		_____		_____	
d. _____		_____		_____	
6. PROJECT TITLE					
7. PROJECT LOCATION					
LATITUDE: _____		UTM		Northing: _____	
LONGITUDE: _____		Easting: _____		_____	
STREET, ROAD, OR OTHER DESCRIPTIVE LOCATION		LEGAL DESCRIPT	QUARTER	SECTION	TOWNSHIP NO. RANGE
<input type="checkbox"/> IN OR <input type="checkbox"/> NEAR CITY OF TOWN (check appropriate box)		WATERWAY		RIVER MILE (if applicable)	
Municipality Name		_____		_____	
COUNTY	STATE	ZIP CODE		_____	
_____	_____	_____		_____	
Revised 2010					
<input type="checkbox"/> Corps of Engineers <input type="checkbox"/> IL Dept of Natural Resources <input type="checkbox"/> IL Environmental Protection Agency <input type="checkbox"/> Applicant's Copy					

Application Form

JOINT APPLICATION FORM FOR ILLINOIS				
ITEMS 1 AND 2 FOR AGENCY USE				
1. Application Number		2. Date Received		
3. and 4. (SEE SPECIAL INSTRUCTIONS) NAME, MAILING ADDRESS AND TELEPHONE NUMBERS				
3a. Applicant's Name: <div>1</div>		3b. Co-Applicant/Property Owner Name (if needed or if different from applicant): <div>2</div>		4. Authorized Agent (an agent is not required): <div>3</div>
Company Name (if any):		Company Name (if any):		Company Name (if any):
Address: <div>1</div>		Address: <div>2</div>		Address: <div>3</div>
Email Address:		Email Address:		Email Address:
Applicant's Phone Nos. w/area code		Applicant's Phone Nos. w/area code		Agent's Phone Nos. w/area code
Business:		Business:		Business:
Residence:		Residence:		Residence:
Cell:		Cell:		Cell:
Fax:		Fax:		Fax:
STATEMENT OF AUTHORIZATION				
I hereby authorize, <div>4</div> to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.				
Applicant's Signature		Date		
5. ADJOINING PROPERTY OWNERS (Upstream and Downstream of the water body and within Visual Reach of Project)				
Name	Mailing Address		Phone No. w/area code	
a.				
b.				
c.				
d.				
6. PROJECT TITLE:				
7. PROJECT LOCATION:				
LATITUDE: <div>°N</div>		UTMs		
LONGITUDE: <div>°W</div>		Northing: <div></div>		
		Easting: <div></div>		
STREET, ROAD, OR OTHER DESCRIPTIVE LOCATION		LEGAL DESCRPT	QUARTER	SECTION
				TOWNSHIP NO.
				RANGE
<input type="checkbox"/> IN OR <input type="checkbox"/> NEAR CITY OF TOWN (check appropriate box) Municipality Name		WATERWAY		RIVER MILE (if applicable)
COUNTY	STATE	ZIP CODE		

Revised 2010
☐ Corps of Engineers ☐ IL Dept of Natural Resources ☐ IL Environmental Protection Agency ☐ Applicant's Copy

- 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

Application Form

- Key Items - continued
- 5. Project Description can be included in narrative if preferred
- 6. Purpose of Project
- 7. Signature – applicant (or agent) and co-applicant

8. PROJECT DESCRIPTION (include all features):

5

9. PURPOSE AND NEED OF PROJECT:

6

COMPLETE THE FOLLOWING FOUR BLOCKS IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

10. REASON(S) FOR DISCHARGE:

11. TYPE(S) OF MATERIAL BEING DISCHARGED AND THE AMOUNT OF EACH TYPE IN CUBIC YARDS FOR WATERWAYS:
TYPE:
AMOUNT IN CUBIC YARDS:

12. SURFACE AREA IN ACRES OF WETLANDS OR OTHER WATERS FILLED (See instructions)

13. DESCRIPTION OF AVOIDANCE, MINIMIZATION AND COMPENSATION (See instructions)

14. Date activity is proposed to commence: Date activity is expected to be completed:

15. Is any portion of the activity for which authorization is sought now complete? Yes ☐ No ☐ NOTE: If answer is "YES" give reasons in the Project Description and Remarks section. Indicate the existing work on drawings.
Month and Year the activity was completed:

16. List all approvals or certification and denials received from other Federal, interstate, state, or local agencies for structures, construction, discharges or other activities described in this application.

Issuing Agency	Type of Approval	Identification No.	Date of Application	Date of Approval	Date of Denial

17. CONSENT TO ENTER PROPERTY LISTED IN PART 7 ABOVE IS HEREBY GRANTED. Yes ☐ No ☐

18. APPLICATION VERIFICATION (SEE SPECIAL INSTRUCTIONS)
Application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

Signature of Applicant or Authorized Agent: Date:

Signature of Applicant or Authorized Agent: Date:

Signature of Applicant or Authorized Agent: Date:

☐ Corps of Engineers Revised 2010 ☐ IL Dept of Natural Resources ☐ IL Environmental Protection Agency ☐ Applicant's Copy

SEE INSTRUCTIONS FOR ADDRESS

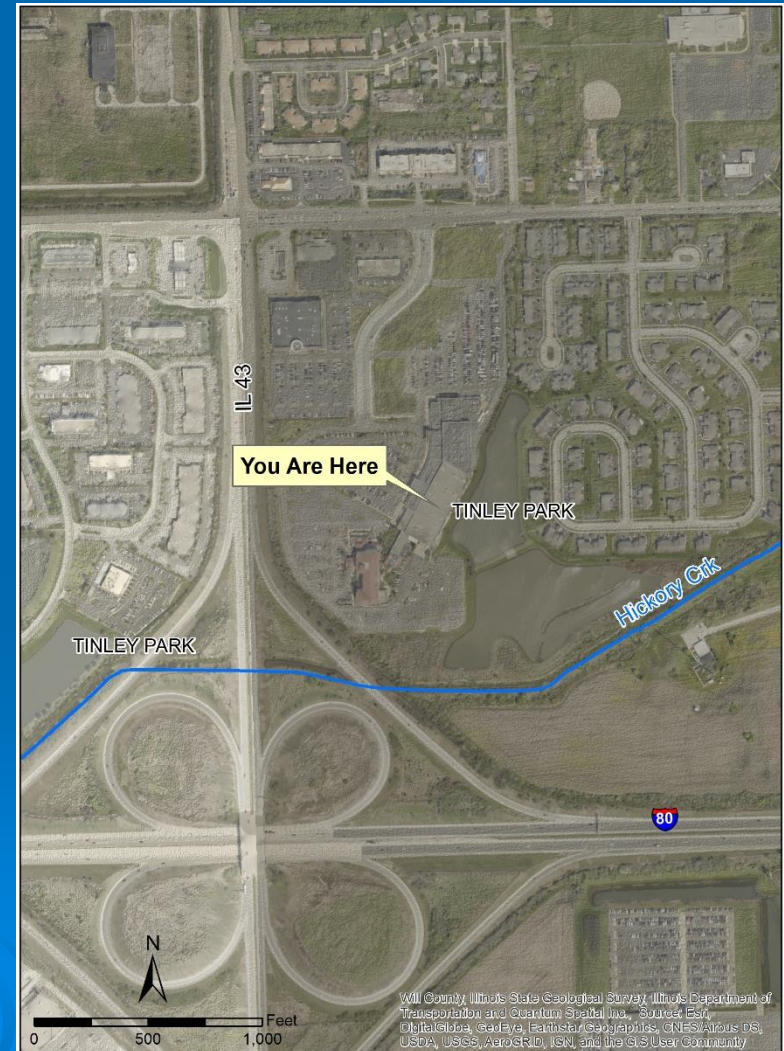
The Do's

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

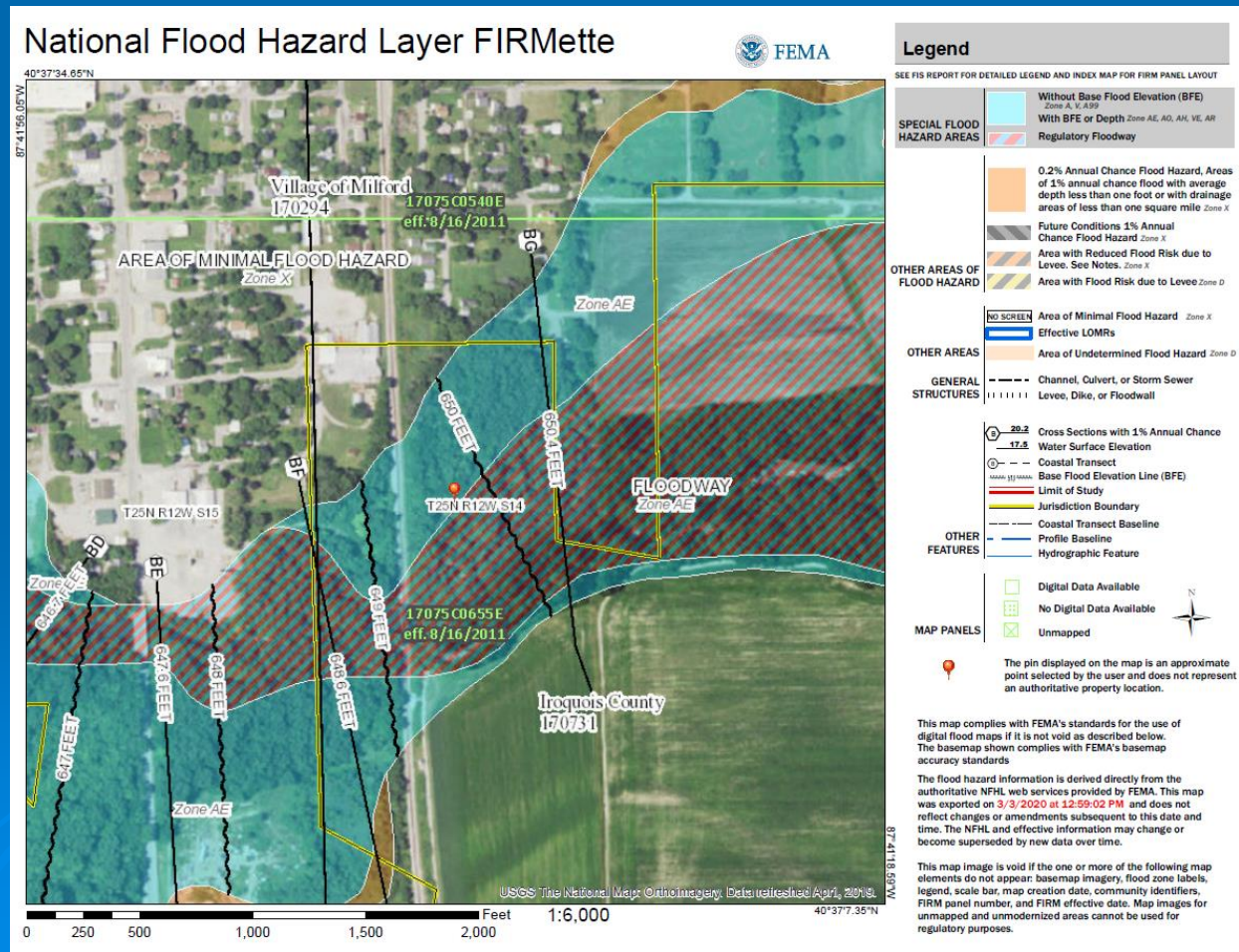
- Show project site
- Include road names
- Show stream with name
- Show/name nearby municipalities



FIRM

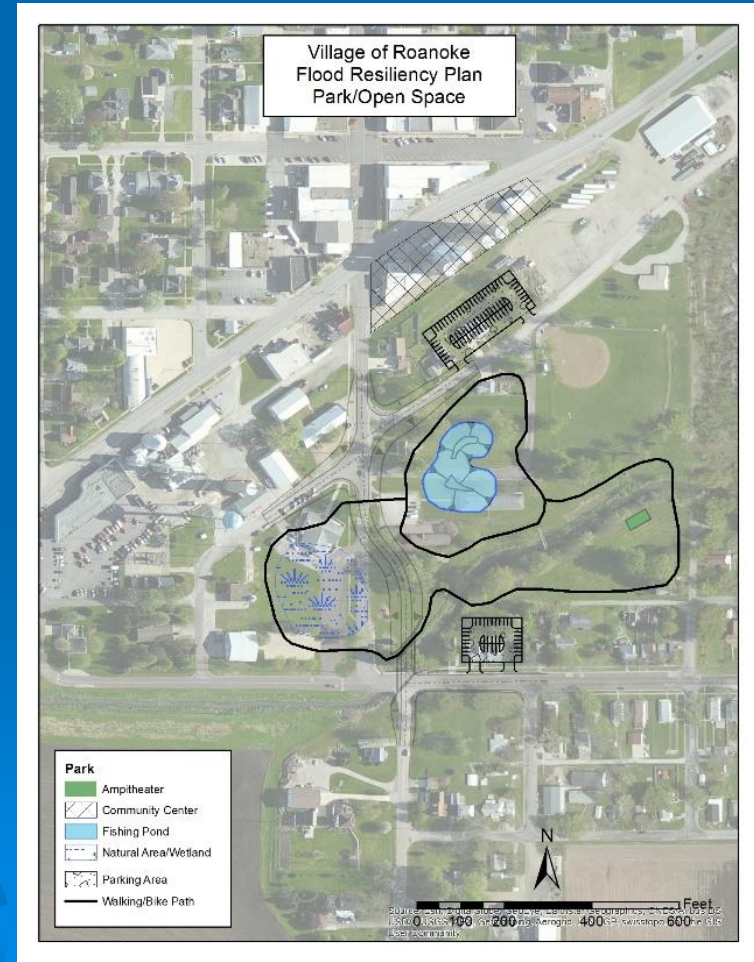
FEMA Map
Service Center

<https://msc.fema.gov/portal/home>



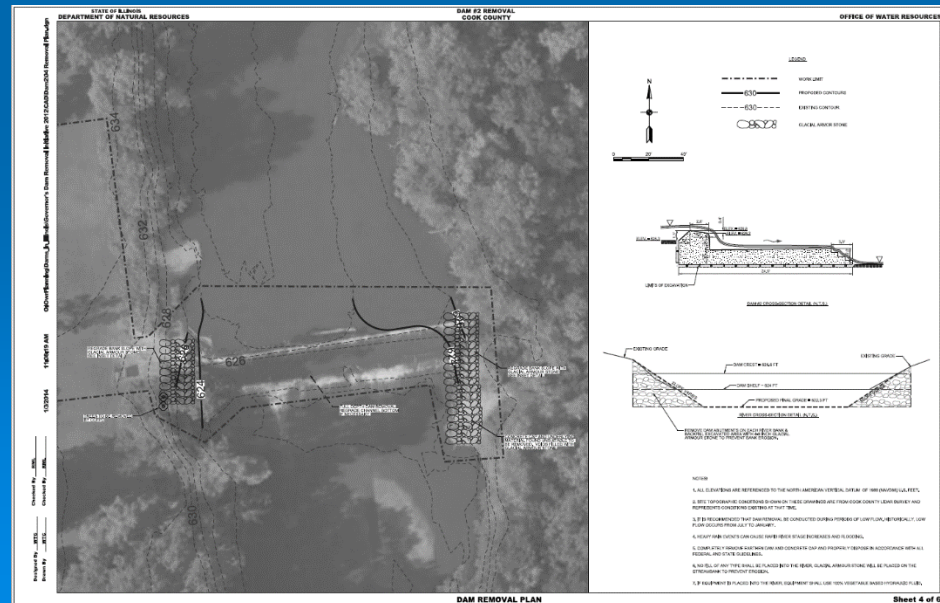
Site Plan

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



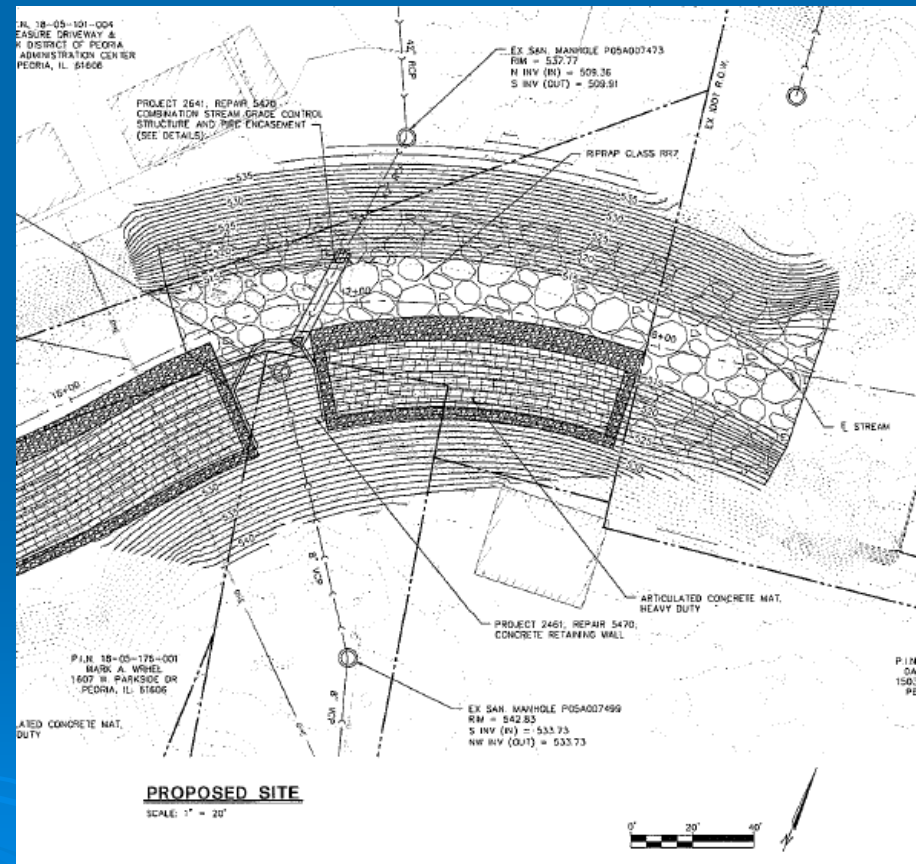
Design Drawings

- 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

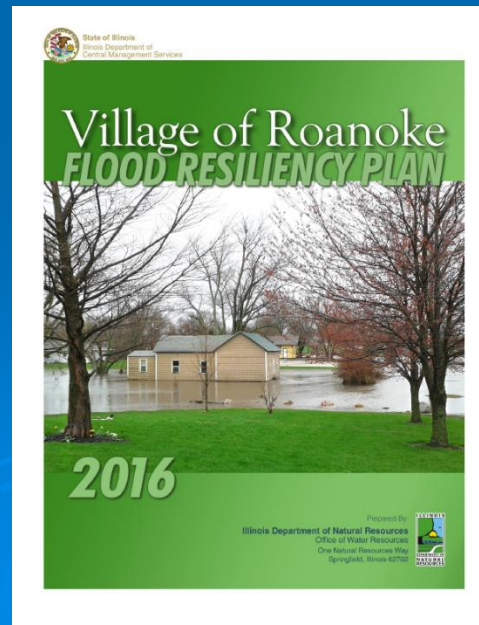
- Narrative
- H&H Study & Modeling
- Engineering Report for H&H Study

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.*

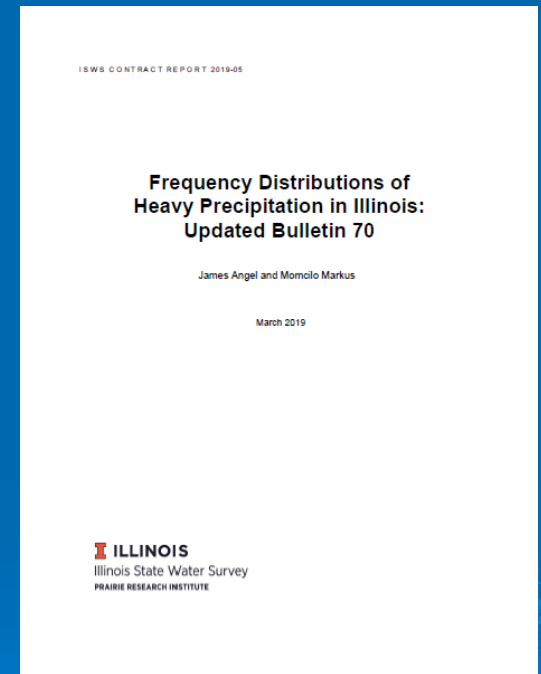
Hydrology

- 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>



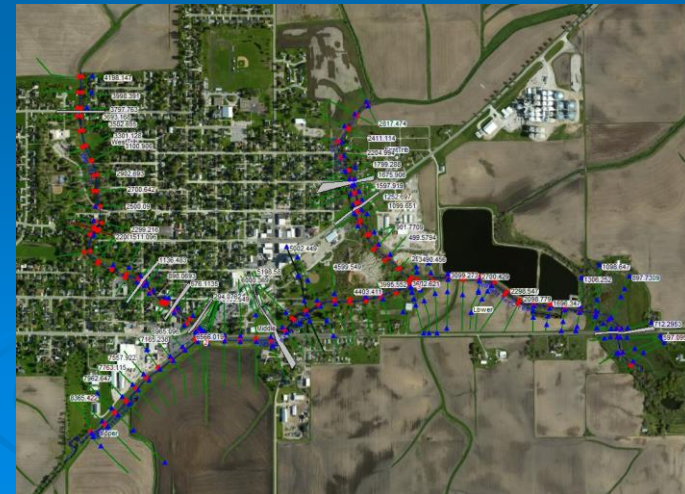
Hydraulic Modeling

- 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.

About 2,000 miles (3,219 km) across

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



Contact Information:

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