Working Near Waterways



Alysson Oliger Compliance and Enforcement Division of Water

Presentation given at Working Near Waterways Workshop hosted by the Stormwater Advisory Committee (SWAC) on 3/12/20.



Division of Water Statutes and Rules

Flood Control Act (IC-14-28-1)

Navigable Waterways Act (IC-14-29-1)

Dam Safety (IC-14-27-27.5)

Lake Preservation Act (IC-14-26-2)

Lowering Ten Acre Lakes Act (IC-14-26-5; "Ditch Act")

Full List: dnr.IN.gov/water/2453.htm



The Flood Control Act

The Flood Control Act (IC 14-28-1) was enacted in 1945 as a way to mitigate for "the loss of lives and property caused by floods and the damage resulting from floods".

The Flood Control Act encourages wise use of the floodway to:

- Minimize increased flood levels
- Minimize injury or loss of human life
- Reduce risk to private and public property
- Minimize the loss of fish, wildlife, and botanical resources as a result of constructing in the floodway





What does it mean to be in a floodplain?

How do I determine if a property is in a floodplain?

What permits are required?



What is a floodplain?

- The floodplain is the area adjoining a river or stream that has been or may be covered by floodwater.
- The floodplain is divided into two parts: floodway and flood fringe.
- Every stream has a floodplain.
- The amount of flooding used to establish permitting jurisdiction is known as the "regulatory flood" or "base flood".

What is the floodway?

- The floodway includes the channel of a river or stream.
- The floodway also includes parts of the floodplain adjoining the channel that are reasonably required to efficiently carry and discharge the peak flow of the regulatory flood of any river or stream.

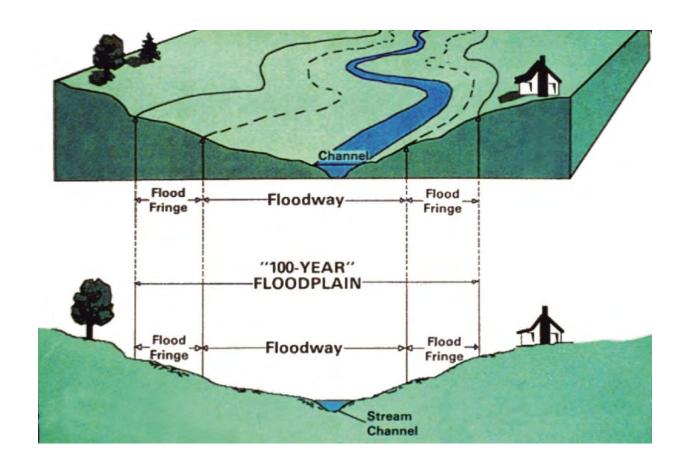
What is the flood fringe?

• The fringe is the portion of the floodplain outside of the floodway.



Floodplain = Floodway + Flood Fringe

- The state's jurisdiction under the Flood Control Act is limited to the floodway.
- A floodway exists for all waterways, even if it has not been mapped.
- If a project is proposed in an unmapped area, consultation with Division of Water staff is advised.





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Where to Find Floodplain Information

Indiana Floodplain Information Portal (INFIP) at infip.dnr.IN.gov

- View floodplain information for sites around the state
- Submit a request for a floodplain determination

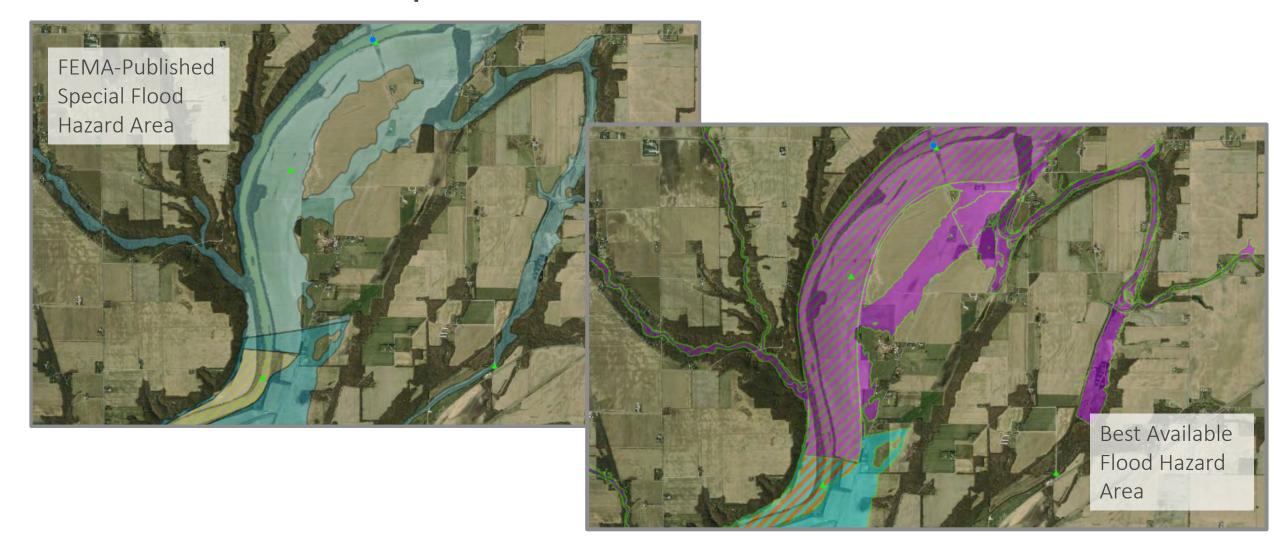
More floodplain Information at <u>floodmaps.IN.gov/</u>

- FEMA/DNR Story Map history of Best Available Floodplain Layer
- Link to INFIP

For planning, regulatory, and permitting purposes, use the "Best Available" floodplain information. Contact the DNR Division of Water if you have questions about whether a property is in a floodplain.



Best Available Floodplain Information

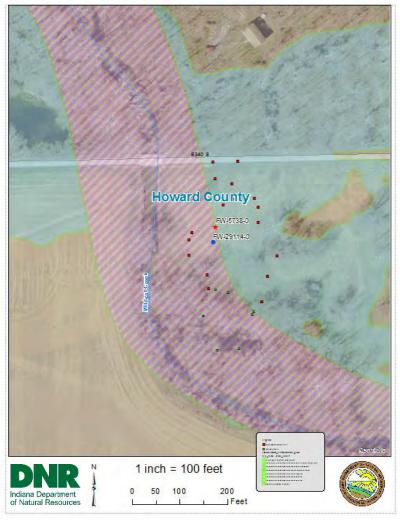




"Best Available" Floodplain Data

Howard County fill







Hamilton County Campground (all floodway)



It's not always easy to see where the floodway is on the ground.





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Jurisdiction Under the Flood Control Act

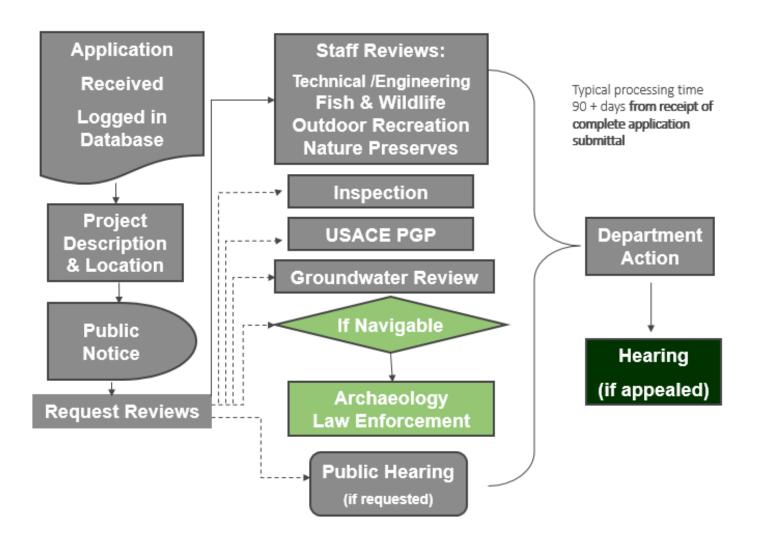
The Flood Control Act requires the prior approval of the DNR, Division of Water for construction in the floodway including an obstruction, fill, excavation, or the construction of a building.

Typical examples of floodway projects subject to DNR review and approval include:

- Fill, excavation, and/or land grading
- Bank stabilization
- Construction of bridges and private access crossings
- Construction or reconstruction of buildings
- Fencing



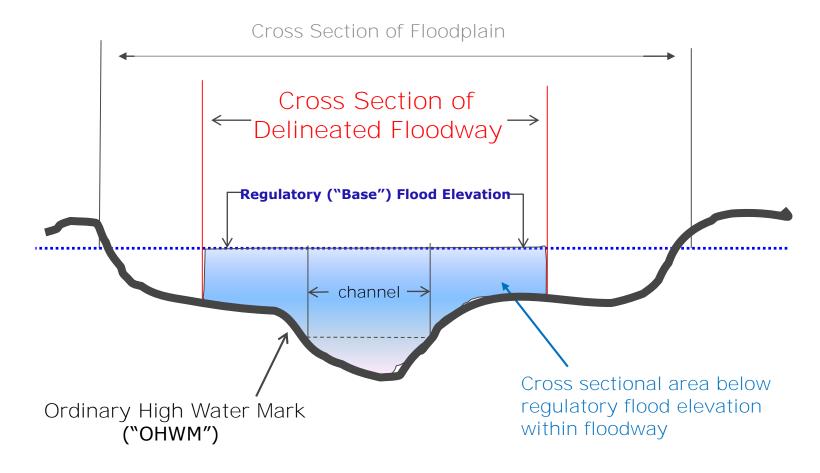
Permit Application Review Process



Permits are valid for two years from the date of issuance. A two year extension can be obtained if a request is received prior to the expiration date.



Regulatory Review: Impact to the Floodway





Regulatory Review: Fish, Wildlife, and Botanical Resources

- Assess impacts to fish, wildlife, and botanical resources
- Look for avoidance; minimize disturbance; mitigation
- Recommends requesting a pre-application review on complex projects



Value of Trees

- Flood Attenuation:
 - Reduction of peak discharge (temporary storage)
 - Reduction of erosion (slows water velocity)
- Water Quality
- Habitat
- Wildlife corridors
- Recreation









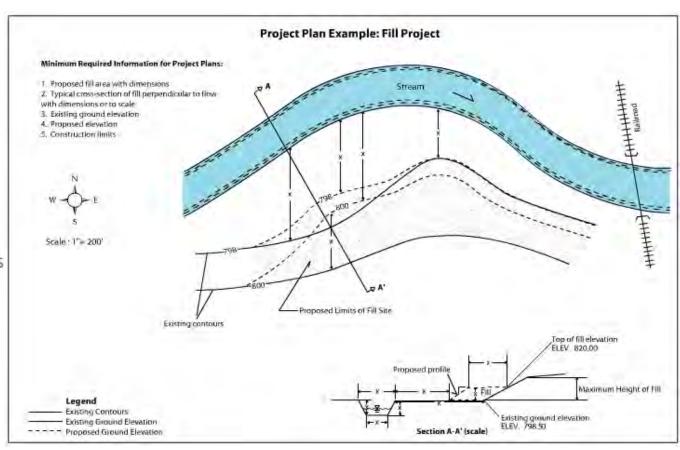


Fill / Excavation Projects

Fill - View Example Plan

Minimum Required Information for Fill:

- Proposed fill area with dimensions
- Typical cross section of fill perpendicular to flow with dimensions
- Existing ground elevation
- · Proposed elevation
- Area that will be obstructed in the floodway





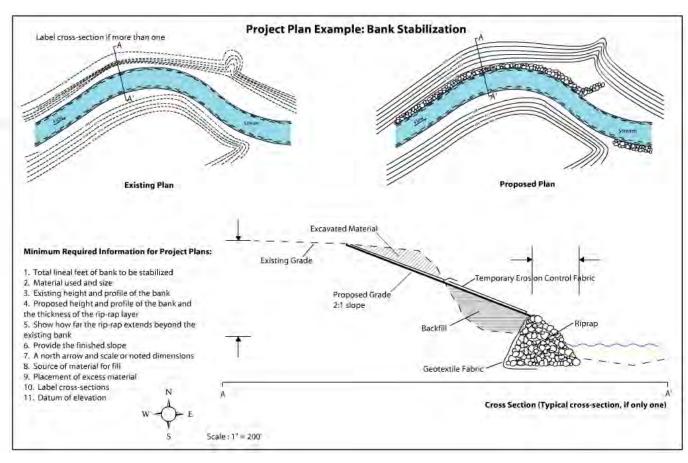
Stream Bank Stabilization Projects

2-11-3 Minimum Required Information by Project Type

Bank Stabilization - View Example Plan

Minimum Required Information for Bank Stabilization Plans:

- · Total lineal feet of bank to be stabilized
- · Material used and size
- · Existing height and profile of the bank
- · Proposed height and profile of the bank and the thickness of the riprap layer
- · Show how far the riprap extends beyond the existing bank
- Provide the finished slope
- · A north arrow and scale
- · Source of material for fill
- Placement of excess material
- · Label cross-sections
- Datum of elevation

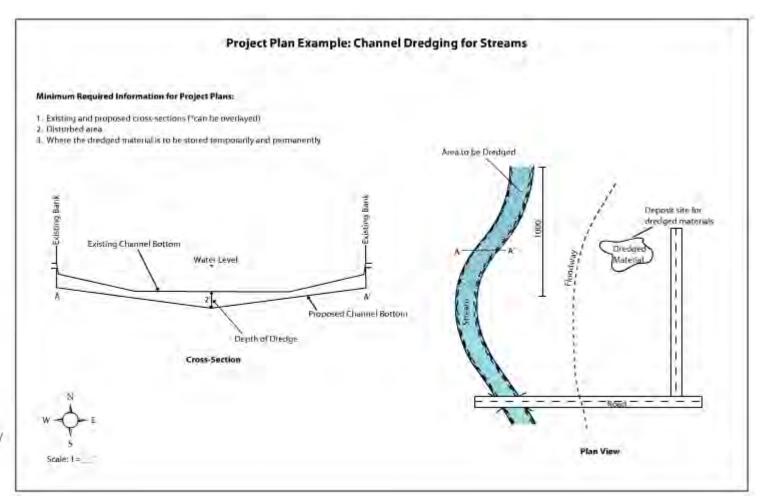


Channel Dredging Projects

Channel Dredging for Streams - View Example Plan

Minimum Required Information for Channel Dredging Plans (Streams):

- · Existing and proposed cross-sections (can be overlayed)
- Disturbed Area
- Where the dredged material is to be stored, temporarily and permanently





The Flood Control Act (IC 14-28-1) requires the prior approval of the DNR, Division of Water for any construction in the floodway including an obstruction, fill, excavation, or the construction of a building.

Exemptions (IC 14-28-1-22)

- Work along a stream with an upstream drainage area less than 1 mi²
- State or County Rural Bridge Projects (D.A. < 50 mi²)
- Certain County Drainage Activity (Stream Length < 10 miles)
- Certain Surface Mining Activity
- Development and maintenance of: crops, pastures, forests, and park and recreational uses (312 IAC 10-4-2)
- Removal of Logjams and Woody Debris (from non-designated waterways)

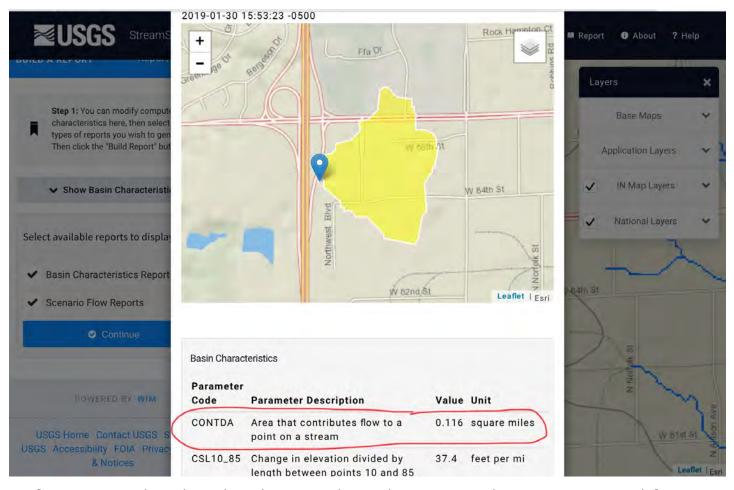
General Licenses (312 IAC 10-5)

- Utility Line Crossings
- Wetland Restoration
- Outfall Structures
- Creek Rock Removal
- Recreational Prospecting (panning for gold)
- Removal of Logjams and Woody Debris from a Salmonid Stream or a Natural, Scenic, or Recreational River or Stream



USGS StreamStats

https://streamstats.usgs.gov/



Approval for construction from the DNR, Division of Water under the Flood Control Act (IC 14-28-1) is not required for waterway stretches with a drainage area of less than one square mile unless the construction project is a proposed dam that is regulated by IC 14-27-7.5.



Log Jam Removal

If the stream reach in question is within DNR jurisdiction and not in an area of additional concern (salmonid, scenic, etc.), the log jam may be removed under General License if certain conditions are met.

These conditions include:

- Remove logs from the floodplain or anchor to prevent them from floating away
- Leave isolated logs or those embedded in the channel
- Where practicable, work from one side of the waterway
- Do not cross the bed of the waterway
- Within 15 days, revegetate all bare and disturbed areas

More details are found in the flow chart on our website: dnr.IN.gov/water/files/wa-Logjam Removal Guide.pdf



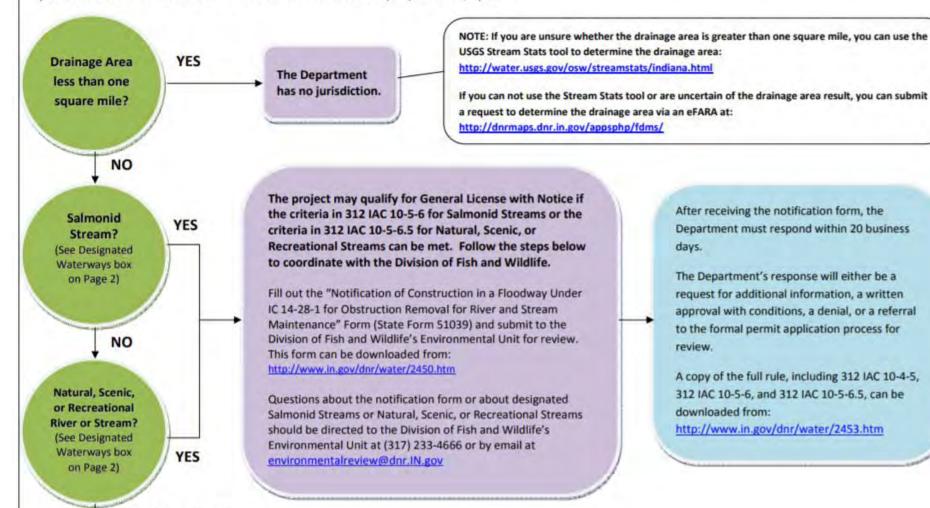
NO (Go to Page 2)

Regulatory Guide for Removal of a Logjam or a Mass of Wood Debris from a Floodway



This document should be used as a reference to determine whether or not a logiam or mass of wood debris (see definitions on Page 2) can be removed without prior written notification and approval from the Department, with written notification to the Department, or if a formal permit application needs to be submitted for review. This document is not in reference to removal of a sandbar from beneath a bridge. Generally, the Department does not have funds available to assist in the removal of a logiam or mass of wood debris. Permission from the landowner is needed if working on property other than your own. If you have any questions about this document, please contact the Division of Water's Technical Services Section at (877) 928-3755, Option 1.

Page



After receiving the notification form, the Department must respond within 20 business days.

The Department's response will either be a request for additional information, a written approval with conditions, a denial, or a referral to the formal permit application process for review.

A copy of the full rule, including 312 IAC 10-4-5, 312 IAC 10-5-6, and 312 IAC 10-5-6.5, can be downloaded from:

http://www.in.gov/dnr/water/2453.htm

Pag 2

For projects along streams with an upstream drainage area of one square mile or greater and not along one of the designated waterways listed below, if the project meets the conditions in IC 14-28-1-22 (b) (6) (C) through (I), no correspondence with the Department is required:

IC 14-28-1-22 (b) (6)

- (C) Except as otherwise provided in Indiana law, free logs or affixed logs that are crossways in the channel must be cut, relocated, and removed from the floodplain. Logs may be maintained in the floodplain if properly anchored or otherwise secured so as to resist flotation or dislodging by the flow of water and placement in an area that is not a wetland. Logs must be removed and secured with a minimum of damage to vegetation.
- (D) Isolated or single logs that are embedded, lodged, or rooted in the channel, and that do not span the channel or cause flow problems, must not be removed unless the logs are either of the following:
 - (i) Associated with or in close proximity to larger obstructions.
 - (ii) Posing a hazard to navigation.
- (E) A leaning or severely damaged tree that is in immediate danger of falling into the waterway may be cut and removed if the tree is associated with or in close proximity to an obstruction. The root system and stump of the tree must be left in place.
- (F) To the extent practicable, the construction of access roads must be minimized, and should not result in the elevation of the floodplain.
- (G) To the extent practicable, work should be performed exclusively from one (1) side of a waterway. Crossing the bed of a waterway is prohibited.
- (H) To prevent the flow of sediment laden water back into the waterway, appropriate sediment control measures must be installed.
- (I) Within fifteen (15) days, all bare and disturbed areas must be revegetated with a mixture of grasses and legumes. Tall fescue must not be used under this subdivision, except that low endophyte tall fescue may be used in the bottom of the waterway and on side slopes.

If the project cannot meet the criteria above, a formal permit application review is required. A permit application form and additional information about the permit application process can be found at: http://www.in.gov/dnr/water/2455.htm

Designated Waterways:

1. SALMONID STREAMS are as follows and in: http://www.in.gov/legislative/jac/T03270/A00020.PDF

327 IAC 2-1.5-5 (3) Where natural temperatures will permit, surface waters shall be capable of supporting putand-take trout fishing. All waters capable of supporting the natural reproduction of trout shall be so maintained. The following waters are designated as salmonid waters and shall be capable of supporting a salmonid fishery:

- (A) Trail Creek and its tributaries downstream to Lake Michigan.
- (B) East Branch of the Little Calumet River and its tributaries downstream to Lake Michigan via Burns Ditch.
- (C) Salt Creek above its confluence with the Little Calumet River.
- (D) Kintzele Ditch (Black Ditch) from Beverly Drive downstream to Lake Michigan.
- (E) The Galena River and its tributaries in LaPorte County.
- (F) The St. Joseph River and its tributaries in St. Joseph County from the Twin Branch Dam in Mishawaka downstream to the Indiana/Michigan state line.
- (G) The Indiana portion of the open waters of Lake Michigan.
- (H) Those waters designated by the Indiana department of natural resources for put-and-take trout fishing. (Refer to http://www.in.gov/dnr/fishwild/3622.htm for listing of put-and-take trout fishing locations.)

2. NATURAL, SCENIC, or RECREATIONAL RIVER or STREAM listing:

- a) Blue River Harrison, Crawford and Washington Counties
- b) Cedar Creek Allen and DeKalb Counties
- c) Wildcat Creek Tippecanoe and Carroll Counties

Further details can be found in 312 IAC 7-2, at: www.in.gov/legislative/jac/T03120/A00070.PDF

Definitions

312 IAC 10-2-26 "Logjam" defined:

"Logjam" means an accumulation of lodged trees, root wads, or other debris that impedes the ordinary flow of water through a waterway. The term does not include the development of sandbars, sedimentation, or accumulations of stone or gravel.

Logiams are evidenced by a blockage that does any of the following:

- (1) Traverses the waterway.
- (2) Causes upstream ponding.
- (3) Results in significant bank erosion.

312 IAC 10-2-29.5 "Mass of wood debris" defined:

"Mass of wood debris" means an accumulation of lodged trees or other wood debris that is any of the following:

- (1) Causing or threatening to cause flooding on a road or private property.
- (2) Impeding navigation by a boat.
- (3) Reducing the capacity of a waterway to transport water.



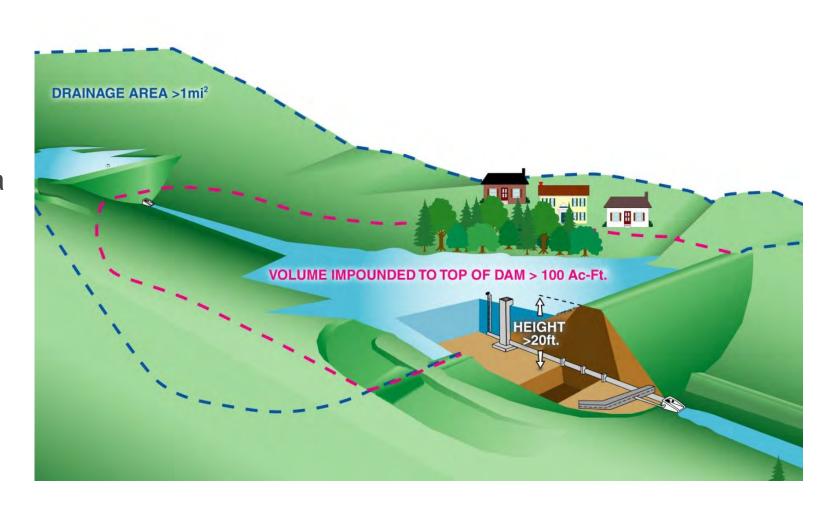
Other Considerations

- DNR Division of Water:
 - Dam Regulations; contact our office for any work involving or near a dam
 - Navigable Waterways
- Fluvial Erosion Hazard
 - Waterways tend to shift across landscapes over time
 - Mapping and more information at http://feh.iupui.edu/
- Other Agencies
 - Indiana Department of Environmental Management (IDEM):
 - Hazardous Waste
 - Wetland impacts
 - Working below the Ordinary High Water Mark (OHWM)
 - US Army Corps of Engineers:
 - Wetland impacts
 - Waters of the State
 - Working below the OHWM



Regulation of Dams IC 14-27-7.5

- 20 feet high or
- 100 acre-feet impounded or
- 1 square mile drainage area

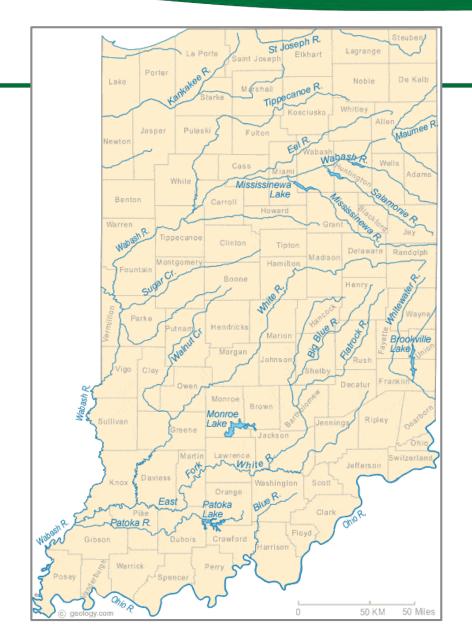




Navigable Waterways

The Navigable Waterways Act (IC 14-29-1) regulates various development activities (e.g. structures, water withdrawal, and mineral extraction) from a navigable waterway by requiring a permit from the DNR prior to the beginning of the project.

DNR authority under the Navigable Waterways Act is further defined in 312 IAC 6: Navigable Waterways.



Navigable Waterways Roster: nrc.IN.gov/2390.htm



Navigable Waterways

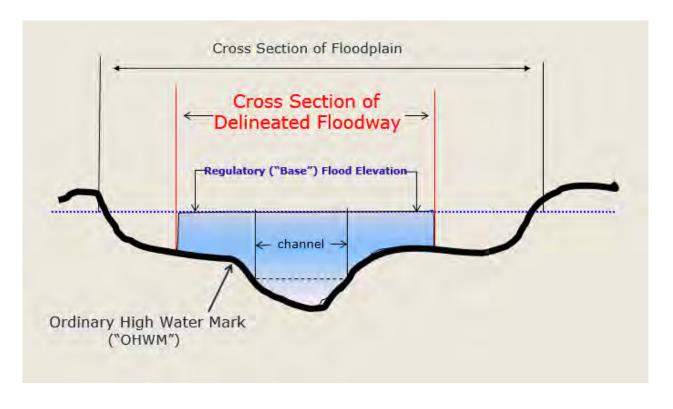
and the

Ordinary High Water Mark (OHWM)

The accepted limit of jurisdiction on a navigable waterway is the ordinary high water mark, unless the State's boundary is present.

The "ordinary high water mark" means:

The line on the shore of a waterway established by the fluctuations of water and indicated by physical characteristics.





Fluvial Erosion Hazard – Whitewater River, Franklin County





2003 2008



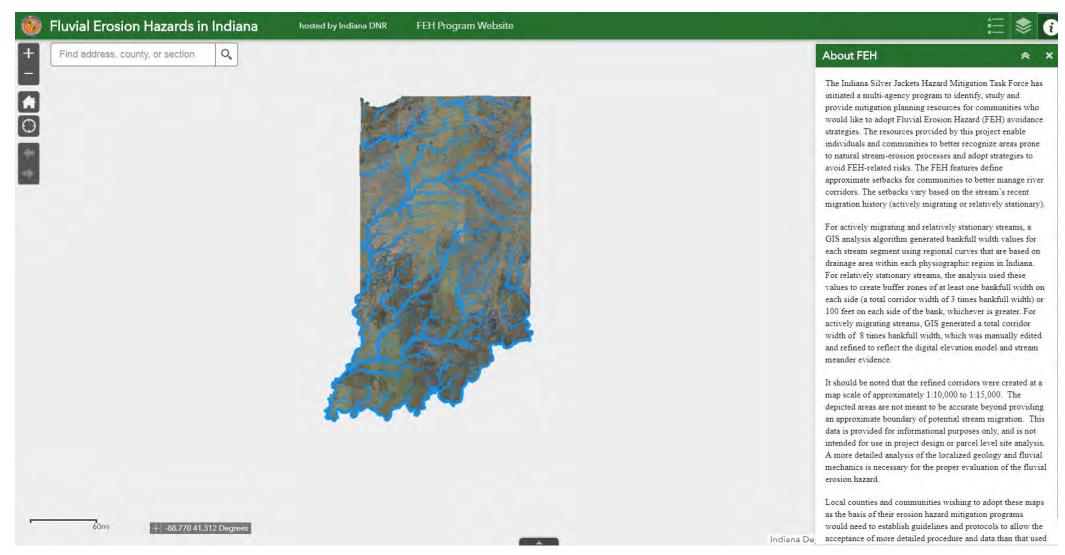
Fluvial Erosion Hazard – Whitewater River, Franklin County





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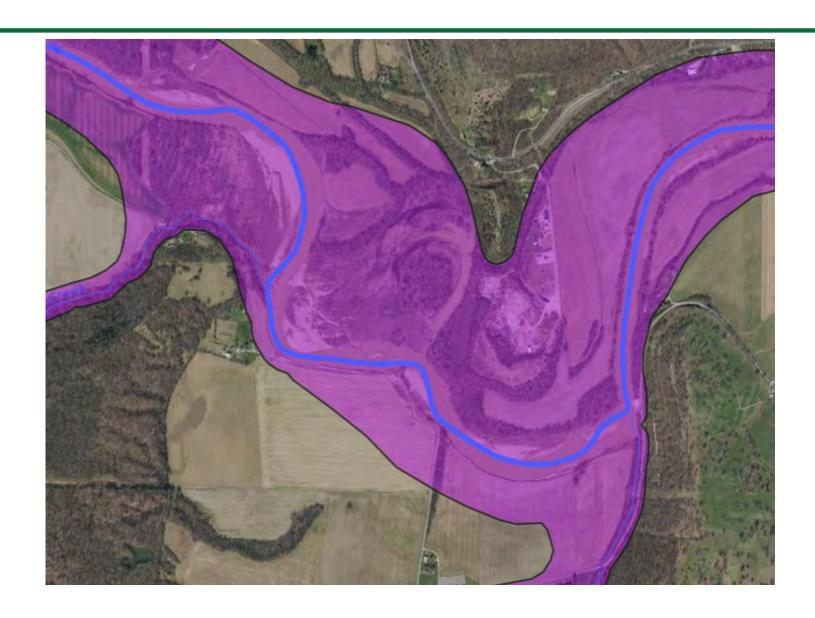


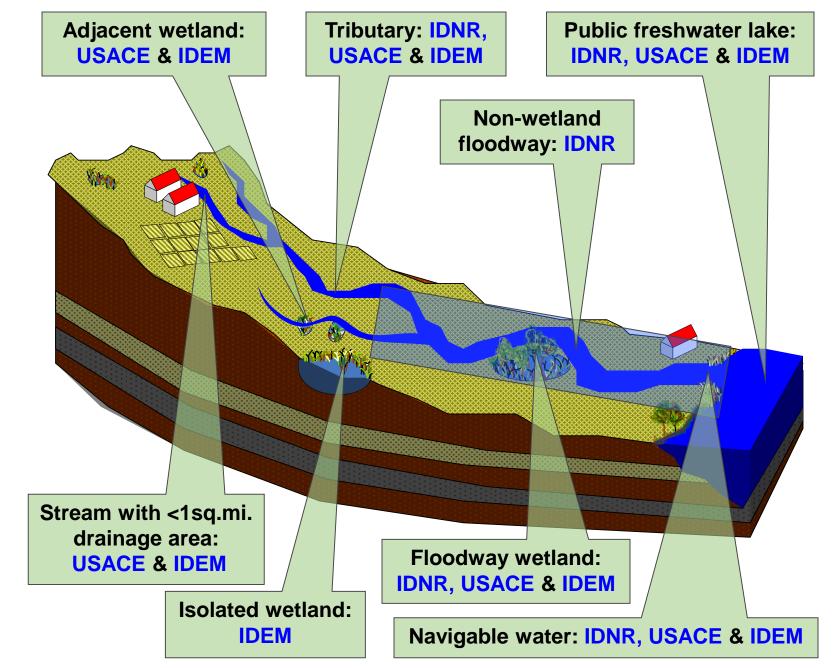


http://feh.iupui.edu/tools/feh-mapping/



Fluvial Erosion Hazard Zone – Whitewater River, Franklin County









Indiana Waterways Inquiry Request

- WATERWAYS
- IDEM and DNR partnered together to create the Indiana Waterways Inquiry Request to help Indiana citizens determine when or if they need a permit to complete a project. It can be accessed via a new Waterways website (www.waterways.IN.gov).
- The Waterways Inquiry Request relates specifically to:
 - Section 401 Water Quality Certifications
 - Isolated Wetlands Permits
 - Constructions in a Floodway permits
 - Other construction along streams, lakes or dams

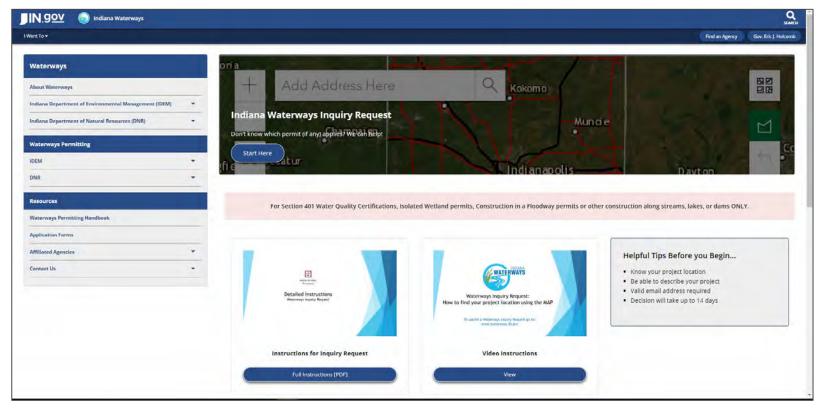


waterways.IN.gov



Website Features

- Indiana Waterways Inquiry Request
- Detailed Written Instructions
- Video Instructions
- Helpful Tips
- Quick links to applications & Waterways Permitting Handbook



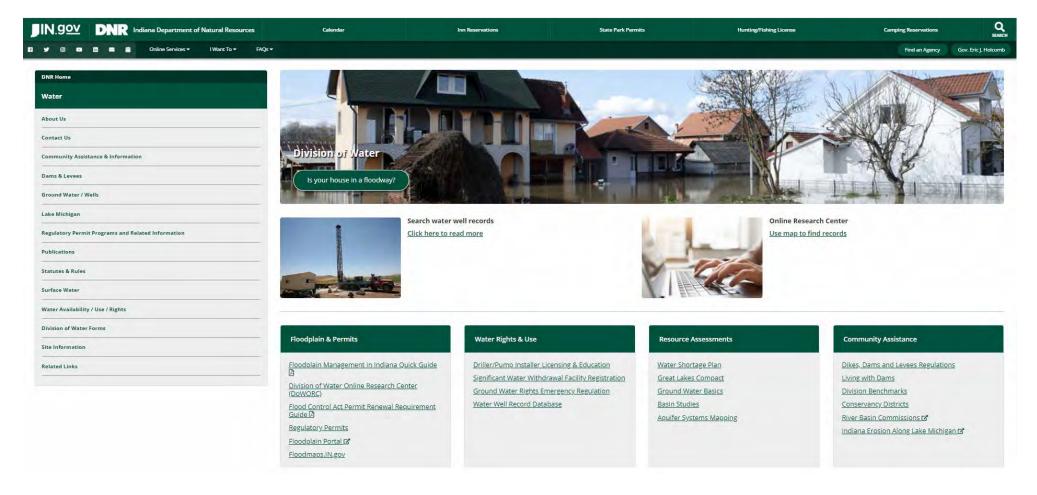


Division of Water Online Resources

- Division of Water website
- Division of Water Online Research Center (DoWORC)
- Indiana Floodplain Information Portal (INFIP)
- Division of Water Unity database

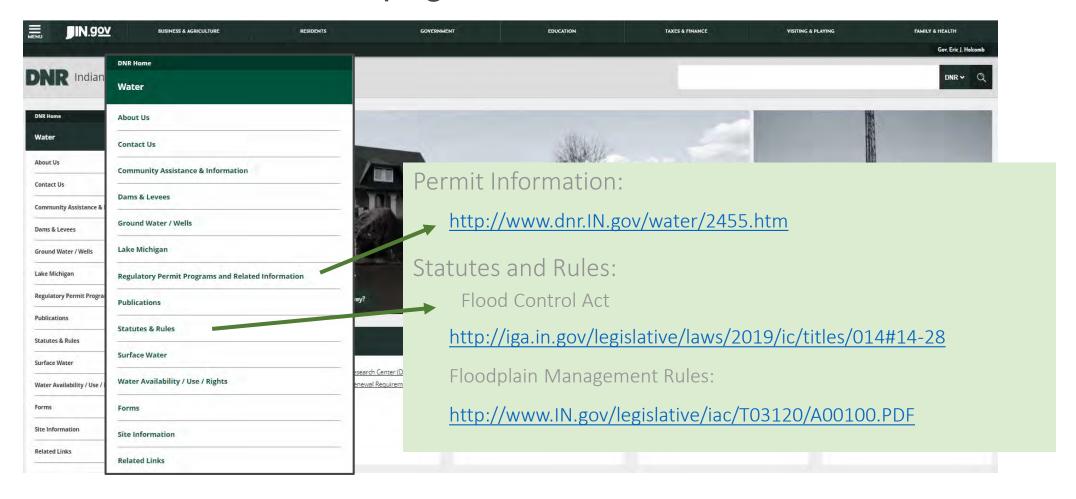


Division of Water website dnr.IN.gov/water



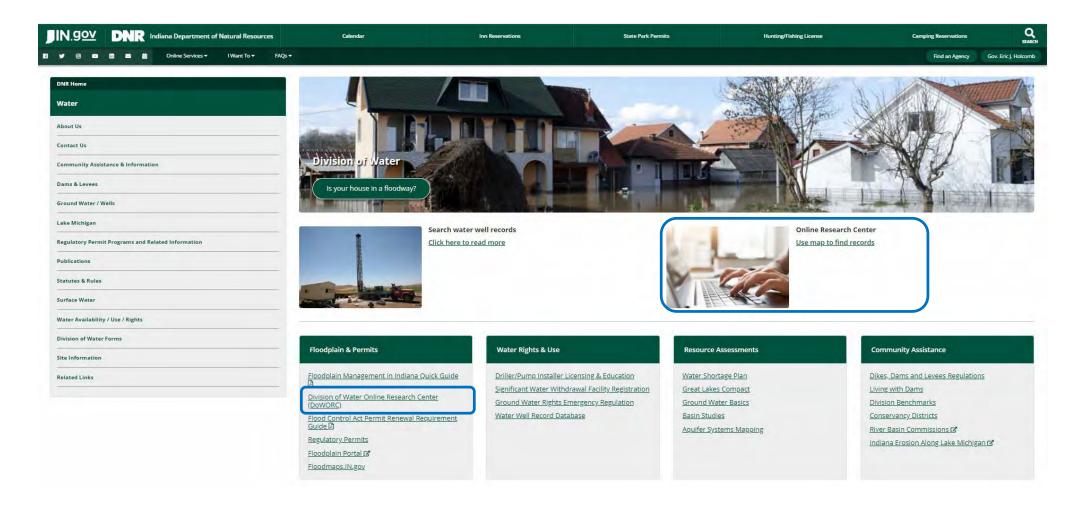


Division of Water Homepage



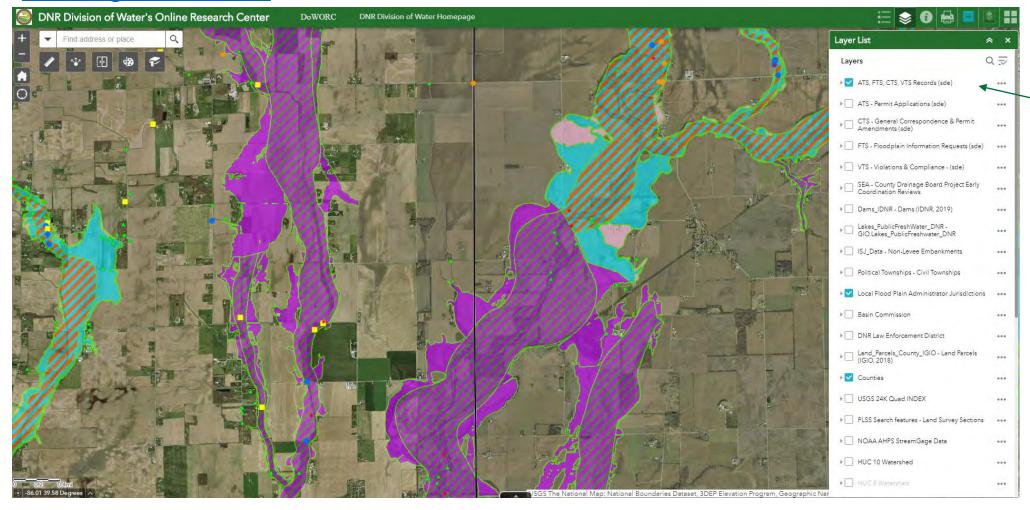


Division of Water's Online Research Center (DoWORC)





Division of Water's Online Research Center (DoWORC) on.IN.gov/doworc



Multiple
layers to
select,
including
Division of
Water
records and
Best
Available
Floodplain
layers

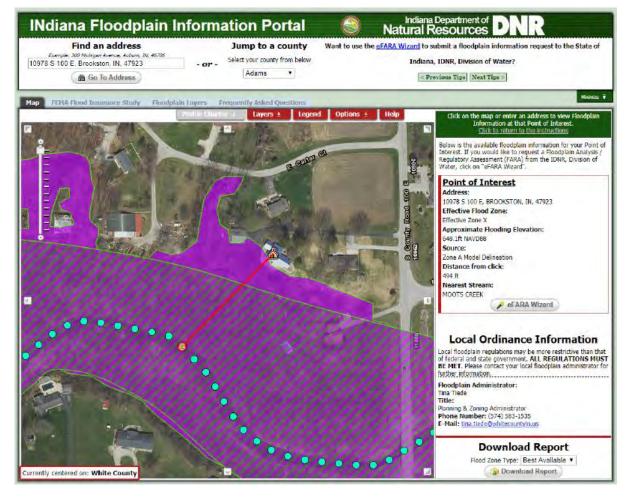


Indiana Floodplain Information Portal (INFIP)





Indiana Floodplain Information Portal (INFIP)



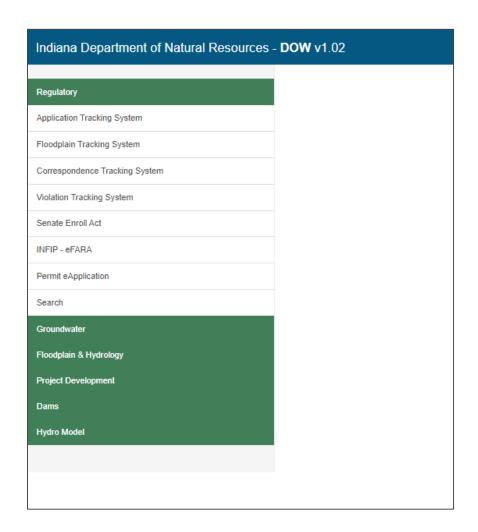
Use INFIP to zoom to a point of interest, view the floodplain information, or submit a request for a Floodplain Analysis and Regulatory Assessment (FARA) using the eFARA Wizard.



Division of Water's Unity Database

dowunity.dnr.IN.gov

- Look up the status of pending permit applications
- Research previous files







Contact Us

Web: http://www.dnr.IN.gov/water/ Email: water inquiry@dnr.IN.gov Phone: 877-928-3755 (toll-free)

Questions about permitting requirements can be directed to the Technical Services section of the Division of Water.

See the <u>Statutes/Rules section</u> for specific information on the DNR's permitting jurisdiction.

Check out waterways. IN. gov for permitting information from both IDEM and DNR!