Common Agricultural Projects

- Bank Stabilization
- Berms & Levees

DNR Division of Water's Regulatory Programs and Online Resources

Suzanne Delay PE CFM, Compliance & Enforcement
Common Agricultural Projects

Stream Crossings & Culverts

Common Agricultural Projects

Fill & Dumping

Common Agricultural Projects

Channel work

Common Agricultural Projects

Tree Clearing

Common Agricultural Projects

Log Jam Removal
Common Agricultural Projects

Buildings, Pole Barns, & Grain Bins

Why Regulate the Floodways?

Historic floods in Indiana led Indiana legislators to adopt the Flood Control Act of 1945.
The loss of lives and property damages resulting from floods is a matter of deep concern to Indiana.
To prevent and limit floods, all waterways in Indiana should be regulated, supervised, and coordinated in design, construction, and operation according to sound and accepted engineering practices to best control and minimize the extent of floods and reduce the height and violence of floods.
Floodways should not be inhabited and should be kept free of interference or obstructions to prevent any undue restriction of the capacity of the floodways.
The water resources of Indiana that have been diminishing should be accumulated, preserved, and protected to prevent any loss beyond reasonable and necessary use.
A master plan or comprehensive plan for the entire state should be investigated, studied, and practices should be established to control floods and to accumulate, preserve, and protect the water resources.

Mission of the Flood Control Act

Encourage 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.

Jurisdiction Determination

• The regulatory authority is limited to the floodway
• All waterways have a floodway
• Not all floodways are identified on published floodplain maps
The stretch of stream that has an upstream drainage area less than one square mile is exempt from permitting requirements under the Flood Control Act unless a dam is constructed and meets the criteria under IC-14-21-7.5.

Construction permit requirements

The Flood Control Act (IC 14-28-1) requires the prior approval of the DNR, Division of Water for any construction in the floodway area including an obstruction, fill, excavation, or the construction of a building.
Effective July 1, 2014, permits are valid for two (2) years from the date of issuance. The Flood Control Act provides a provision for a two (2) year extension if a request is received prior to the permit’s expiration date.

Exemptions (IC 14-28-1.22)
• Removal of Logjams and Obstructions
• State or County Rural Bridge (Q.A. > 50 mi²)
• Certain County Drainage Activity (Stream Length > 10 miles)
• Certain a Surface Mining Activity

General License (312 IAC 10-5-0.3)
• Utility Line Crossings
• Wetland Restoration
• Outlet Structures
• Creek Rock Removal
• Recreational Prospecting
Flood Control Act Review Criteria

Adversely affect the efficiency or capacity of the floodway
- an increase in the regulatory flood elevation of 0.15 feet
- cannot back up floodwaters more than 0.14 beyond the project's location

Present an unreasonable hazard to the safety of life or property
- resulting from the increase as noted above
- present an unreasonable hazard to the safety of life or property
- resulting from the increase as noted above

Result in unreasonably detrimental effects upon fish, wildlife, or botanical resources
- based upon the opinion of a professional qualified to assess the damage
- creates a condition where recovery of the affected resources is not likely to occur within an acceptable period
- cannot be mitigated through the implementation of a mitigation plan approved by the director

Assessment includes the cumulative impacts from other projects

Who Regulates What?

Public freshwater lake:
- IDNR, USACE
- IDEM

Navigable water:
- IDNR, USACE
- IDEM

Non-wetland floodway:
- IDNR

Floodway wetland:
- IDNR, USACE
- IDEM

Adjacent wetland:
- USACE & IDEM

Tributary:
- USACE & IDEM

Public freshwater lake:
- USACE & IDEM

Floodway wetland:
- USACE & IDEM

Non-wetland floodway:
- IDNR

Isolated wetland:
- IDEM

Stream with <1 sq. mi. drainage area:
- USACE & IDEM

Zone AE versus Zone A Mapping

Not Located in the Floodway:
- No DNR FARA or DNR Permit Required
- Local Floodplain Ordinances Must Be Met

Located in the Floodway:
- DNR Permit Required
- No DNR FARA Required

Floodplain Analysis and Regulatory Assessment (FARA)

- Determines the Base Flood Elevation
  - Required to determine floodway in Zone A areas and may be required as a part of the Non-Modeling Workæhoes for permits
  - Floodplain Mapping Indicator
  - Defines the floodway for the property
  - Is tied to the map sent with the FARA

Special Information:
- DNR Jurisdiction
- Flood Insurance
- Map Change
  - If the county is preliminary or if the request appears to be related to a LOMA request

Additional Permitting Agencies:
- Inform the requestor that coordination with Local other State and Federal agencies may be required for their proposed project
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. Some primary conditions:

- Remove logs from the floodplain or anchor to prevent floating away
- Leave isolated logs or those embedded in the channel
- Where practicable, work from one side of the waterway
- Crossing the bed of the waterway is Prohibited
- Within 15 days vegetate all bare and disturbed areas. Tall fescue is not allowed under this provision except under one specific exception.

More details are found in the flow chart on our website: http://www.in.gov/dnr/water/files/wa-Logjam_Removal_Guide.pdf

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The Act applies to ditch / drain work that is

1) located within ½ mile of a freshwater lake having an area of at least ten acres, and

2) the ditch / drain has a bottom depth below the lake’s normal water level.

Normal water level means

1. the water level of the lake established by law, or
2. the level where the presence and action of the water has given the bed of the lake a distinct character, different from the surrounding land.

Example: Webster Lake Legal Level = 852.75 ft.
If the department finds that the proposed work will not:

1. endanger the legal or normal water level of the lake, or
2. result in unreasonably detrimental effects upon fish, wildlife, or botanical resources

the department shall grant the request and issue a permit.

Projects submitted under the Lake Preservation Act are reviewed on the basis of its impacts on:

- The shoreline, water line, or bed of the public freshwater lake
- The fish, wildlife, or botanical resources
- The public rights for the natural resources, the natural scenic beauty, and the recreational purpose of the lake
- The management of watercraft operations
- The interests of a landowner having property or access rights
- Assessment of the above criteria includes the cumulative impacts from other projects in the vicinity

In addition, any construction, reconstruction, cleaning, or repair of a ditch, dam, or other project that is likely to affect a lowering of the water on the public freshwater lake, that covers an area of at least ten (10) acres, regulated or otherwise, is prohibited.

Projects that are proposed lakeward, along the shoreline, or walls landward of the shoreline within 10 feet and below the legal or normal water level of a public freshwater lake require a permit.
Regulation of Dams

IC 14-27-7.5

DNR does not regulate dams that:

- Are built solely for erosion control, watering livestock, recreation, a refuge for fish or wildlife
- Have a drainage area above the dam of less than one square mile
- Do not exceed 20-feet in height
- Do not impound more than 100-acre feet of water
- Are regulated under the federal Mine Safety and Health Act, unless the dam will be retained as a permanent structure after bond release

Well Construction and Pump Installation

Well Construction & Pump Installation Requirements set forth by IC 25-39 & 312 IAC 13 which include:

- Licensing & Cont. Ed Requirements
- Well Location & Construction Standards
- Extension of well casings / Pitless Unit
- Minimum Depths for Pump Setting
- Proper grouting materials and procedures
- Well Abandonment

Licensing of Well Drillers and Pump Installers

- Indiana has required drillers to be licensed since January 1, 1988
- Pump Installer licensing required as of January 1, 2011
- Indiana Licensed Drillers construct wells for water supply, environmental monitoring, dewatering, and geothermal heating and cooling.

Identifying licensed well drillers and pump installers

- Every driller or installer is issued a wallet-size card with their name, license number, DNR receipt number, and expiration date.
- DOW keeps detailed license records for the public (and for the DNR auditor).
- The DOW license program coordinator can confirm license status and provides a listing of drilling or pump contractors by county—which is also available online.

License Number: 394 WD PI
Expiration Date: December 31, 2013
DNR Receipt Number: 179420
Signature: ____________________
Well Construction Standards

- Licensed well drillers are responsible for installing wells that meet standards for casing, grouting, screens, depth, and diameter.
- A properly constructed water well and properly installed pump equipment prevents contamination of ground water by surface water, floods, or chemical spills.

There are rules for procedures and materials used in well installation.

Indiana began regulating well pumps January 2011.

Significant Water Withdrawal Facility Registration

- IC 14-25-7: Water Resources Management Act
  - Enacted in 1983
  - Requires registration of all SWWF (gw & sw)
  - Facility defined as greater than 100,000 gpd capability
  - Capability is aggregate of all wells & intakes
  - Annual water use reporting
  - Approximately 4050 SWWFs currently registered

Water Rights: Emergency Regulation
Water Rights

Indiana Code 14-25-4

• Offers protection to well owners if their water supply is impacted by nearby high capacity pumping
• Provides for “Timely and Reasonable Compensation” to owners of domestic wells affected by high capacity ground-water pumpage
• Provides for restrictions on high capacity ground-water pumpage under certain conditions

Restriction of Ground-Water Withdrawals

The director may restrict the quantity of ground water that may be extracted from a significant ground-water withdrawal facility upon the declaration of a ground water emergency if:

(1) The facility is reasonably believed to have caused the failure of the complainant’s water well; and
(2) The immediate temporary provision of and adequate supply of water is not carried out; or
(3) There is reasonable belief that continued ground-water withdrawals from the facility will exceed the recharge capability of the ground-water resource of the area.

Well Abandonment

What is an abandoned well?

• A well whose original purpose and use have been discontinued for more than five years, or
• that is in such a state of disrepair that using it to obtain ground water is impractical or a health hazard.
• The well owner is responsible for having the abandoned well plugged by a licensed well driller.

Permanent Abandonment of Wells

• Wells abandoned after December 31, 1987, shall be plugged with an impervious grouting material to prevent the migration of materials or fluids in the well and the loss of pressure in a confined aquifer.
• Plugging must be done by an Indiana licensed water well driller or pump installer.

Well Plugging Materials

• Neat cement with not more than five percent (5%) by weight of bentonite;
• Bentonite slurry (which can include polymers to retard swelling);
• Pelletized or medium-grade or coarse-grade crushed bentonite; or
• Other materials approved by the Commission
The Division of Water uses a multitude of GIS resources to make site maps for every application and request.

INFIP = Indiana Floodplain Information Portal

- www.infip.dnr.in.gov
- Interactive map
- Submit a request for floodplain information directly to our office.
- View floodplain maps along a waterway
- Provides useful information related to floodplains, floodways, and state floodplain regulations
  - What is a floodplain
  - What is a floodway
  - What is a base flood elevation
- View Preliminary and Published Mapping
- View Base Flood Elevations
  - Zone AE elevations based on profile in FIS
  - Zone A based on approximate studies

Submit an eFARA

- Enter an Address or Zoom to County
- Pan and Zoom to the exact site of the determination
- View Published and Preliminary Floodplain Mapping

Flood Elevation Points Legend

- Flood Elevation Points – Zone AE (Detailed)
- Flood Elevation Points – Zone A (Approximate)

Water Well Records Online

- Individual records can be printed or downloaded from the database.
- Finding records is easier when users specify county name and township, range, and section numbers.
- The water well web viewer is a map based application of the same database.

Access to the online database is free of charge, 24 hours a day.

www.in.gov/dnr/water/3595.htm
Water Well Records Online

Valuable Information for Homeowners, Well Drillers, Resource Mapping, Water Rights Investigations & General Well Maintenance or Repair

SWWF Records Online

SWWF Location Map

Indiana MAP

91 of 92 counties have agreed to make county data available as a statewide data set. Shared data includes address points, street centerlines, land parcels, and administrative boundaries.

http://www.in.gov/gis/datashare.htm

- 260 GIS Layers available for Download
- Download GIS Data and Metadata
- Web Services (ArcMap, ArcGIS Explorer, ArcGIS Player, Google Earth)
- Imagery, Quadrangle, Shaded Relief Basemaps
- Measurement Tool
- Draw Functions
- Labeling Functions

Useful Websites for Floodplain & Groundwater Information

IDNR Division of Water Websites

- Division of Water Website
  - http://www.in.gov/dnr/water/
  - Starting point for all of our online resources: permit applications, well logs, information regarding the regulations we administer, and other information available in our Division.

Indiana Floodplain Information Portal (INFIP)

- http://dnrmaps.dnr.in.gov/appsphp/fdms/
  - Interactive map used to request Floodplain Information including base flood elevation, discharge, permit requirements, and information on flood insurance

Regulatory Permit Programs and Related Information

- http://www.in.gov/dnr/water/2455.htm
  - All permitting information can be found at this page

Log Jam Removal Information

  - Flow chart to help determine when log jam removal can be done without a permit and when a permit is needed.

Water Well Records Online

- http://www.in.gov/dnr/water/3595.htm
  - Copies of individual well records submitted by well drillers

Significant Water Withdrawal Facilities

- http://www.in.gov/dnr/water/4841.htm
  - Information and map with SWWF data

Other State of Indiana Websites

Indiana Peak Discharge Determination System

- http://dnrmaps.dnr.in.gov/appsphp/dischargecalc/
  - Interactive map that links to USGS StreamStats to determine Drainage Area and runs a Coordinated Discharge at a given point on a stream

Indiana MAP

- http://www.indianamap.org/
- http://maps.indiana.edu/ (interactive)
  - Publicly available collection of Indiana GIS map data.

Indiana State Department of Health

- http://www.in.gov/isdh/20389.htm
  - Public Health information, including wells

Purdue University Extension

- www.agcom.purdue.edu/AgCom/Pubs/menu.htm
  - Many informative documents in the publications library
Federal Websites

StreamStats
  - Interactive map for determining drainage area of streams
    - Hydrology uses (other than drainage area) not approved for DNR use

FEMA Map Service Center
- https://msc.fema.gov/portal
  - Tool for looking up FEMA floodplain maps and Flood Insurance Study documentation

FEMA Map Service Center
- https://msc.fema.gov/portal
  - Tool for looking up FEMA floodplain maps and Flood Insurance Study documentation

National Flood Hazard Layer
- http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7870446eaf56c34e0f90edf45
  - Interactive map for looking up FEMA Letters of Map Amendment (LOMA) and Letters of Map Revision (LOMR)

US Environmental Protection Agency
- www.epa.gov/safewater
  - General water quality information

Center for Disease Control & Prevention
- www.cdc.gov/ncidid/healthywater
  - Safe drinking water information

DNR-Division of Water contact info

Division general contact:
water_inquiry@dnr.in.gov
Telephone: 317-232-4160 or Toll Free 1-800-928-3755

Compliance & Enforcement Section
General number: 317-234-1116
Inspectors:
  - Toby Adams tadams@dnr.in.gov
  - Suzie Delay sdelay@dnr.in.gov

Technical Services Center
Call the general number and select Option 1

Water Rights and Use Section
Call the general number and select Option 4
Mark Basch mbasch@dnr.in.gov
Monique Riggs mriggs@dnr.in.gov
Allison Mann almann@dnr.in.gov

DNR, Division of Water general email address: water_inquiry@dnr.in.gov
Telephone: 317-232-4160 or Toll Free 1-800-928-3755