

CHAPTER 7 - INDIANA DEPARTMENT OF NATURAL RESOURCES (IDNR) PERMITTING

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Intended Use of Manual for INDOT and Local Projects

This manual has been written to set expectations for waterway permitting deliverables and review paths for projects developed by the Indiana Department of Transportation (INDOT). Other projects may also benefit from the guidance in this manual. Specifically, preparers of permits for local projects that receive federal funds and which follow INDOT standard specifications are encouraged to use this manual; however, INDOT does not review permits or other related deliverables for local projects

CHAPTER 7 - INDIANA DEPARTMENT OF NATURAL RESOURCES (IDNR) PERMITTING

INTRODUCTION TO IDNR PERMITTING

The Indiana Department of Natural Resources (IDNR) administers several regulatory programs overseeing construction activities within, over, and/or under state waterways. The goal of these programs is to ensure water resources are used in a prudent manner while minimizing floodway related damages and protecting environmental and cultural resources. Four programs that INDOT typically encounters (from most to least common) are the Flood Control Act, the Navigable Waterways Act, the Lakes Preservation Act, and the Lowering of the Ten Acre Lakes Act.

Flood Control Act

The Flood Control Act (IC 14-28-1) regulates various development activities (i.e. structures, obstructions, deposits, and/or excavations) within the 100-year floodway of any waterway by requiring IDNR approval prior to the beginning of the project. The floodway is defined as the channel of a river or stream and those portions of the floodplain adjoining the channel which are reasonably required to efficiently carry and discharge the peak flow of the regulatory flood of any river or stream. Note that the floodway is only a portion of the floodplain as shown in Figure 7.1. Many floodways have been mapped through studies for the National Flood Insurance Program. However, floodways exist for all waterways even if they have not been formally mapped.

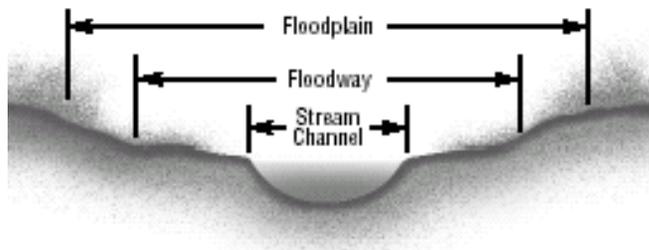


Figure 7.1 Floodplain vs. Floodway Schematic

Regulated activities under this act include, but are not limited to: bank stabilization, bridge construction/reconstruction, excavations, fills, levee construction/reconstruction, outfalls, and certain utility work. The primary goal of the Flood Control Act is to minimize the extent, height, and violence of flooding. IDNR will also evaluate whether or not the project will cause “unreasonable detrimental effects upon fish, wildlife, or other botanical resources.”

Navigable Waterways Act

The Navigable Waterways Act (IC 14-29-1) regulates development activities associated with navigable waterways by requiring a permit from IDNR prior to the start of construction. Under the Act, a “person” may not (1) place, fill, or erect a permanent structure in, (2) remove water from, or (3) remove material from a navigable waterway without a permit. Activities include, but are not limited to, structure work, water withdrawal, and mineral extraction. A list of navigable waterways (Natural Resources Commission Information Bulletin #3) is included in Appendix E-1 - IDNR List of Indiana Waterways Declared

Navigable. Note that an IDNR navigable waterway may or may not also be a USCG navigable waterways.

Lakes Preservation Act

The Lakes Preservation Act (IC 14-26-2) requires approval from IDNR before modifications can be made to the level or shoreline of any public freshwater lake. A “lake” is a reasonably permanent body of water (in existence on or before March 12, 1947) that: (1) is substantially at rest in a depression in the surface of the earth that is naturally created; (2) is of natural origin or part of a watercourse, including a watercourse that has been dammed; and covers an area of at least five (5) acres within the shoreline and waterline. A “public freshwater lake” is a lake that has been used by the public with the acquiescence of a riparian owner. Modifications that may require a permit includes seawalls, dredging, and fill material placement. A listing (not all inclusive) of public freshwater lakes is included in Appendix E-9 - IDNR - Public Freshwater Lakes.

There are three types of activities that require a permit under this act. First, a permit must be obtained to excavate, place fill, or place, modify, or repair a temporary or permanent structure over, along, or lakeward of the shoreline or water line of a public freshwater lake. Second, a permit must be obtained to construct a wall whose lowest point would be below the elevation of the shoreline or water line and within ten (10) feet landward of the shoreline or water line. Finally, a permit must be obtained to change the water level, area, or depth of a public freshwater lake or the location of the shoreline or water line.

Lowering of Ten Acre Lakes Act

The Lowering of Ten Acre Lakes Act (IC 14-26-5) regulates all ditch or drain work that is both located within a half mile of a freshwater lake’s shoreline and has a bottom depth lower than the lake’s normal water level. A permit from IDNR is required prior to project initiation. Specific work on ditches that would require a permit includes ditch relocation, establishment, construction, reconstruction, repair, or recleaning. The activity will be evaluated to determine if the proposed work will not endanger the legally established water level of a lake, the normal water level of a lake whose water level had not been legally established, or will not result in unreasonably detrimental effects upon fish, wildlife or botanical resources.

7.1 CONSTRUCTION IN A FLOODWAY (CIF) PERMIT

Background

Permits issued under the Flood Control Act are called Construction in a Floodway (CIF) permits. IDNR evaluates projects to protect the floodway from undue restrictions and environmental impacts. A CIF could be required for any waterway with an upstream drainage area equal to or greater than one (1.0) square mile; however there are several exemptions from CIF permitting. IDNR has exemptions for rural bridges, logjam removal projects, utility line crossings, wetland restoration measures, and outfall structures. In addition, INDOT has a Memorandum of Understanding (MOU) with IDNR that exempts certain maintenance activities from CIF permitting requirements. If a project meets the criteria for a specific exemption, it then falls under the general license provided by statute.

Rural Bridge Exemption

In order for a project to qualify for the rural bridge exemption, all of following criteria must be met. The project must:

- Be an INDOT or county highway department funded project;

- Be a bridge project (IDNR’s bridge definition includes small structures such as culverts and pipes);
- Be located in a rural area where the:
 - Lowest floor elevation (including basement) of any residential, commercial, or industrial building impacted by the project is above the 100 year flood elevation;
 - Project is located outside the corporate boundaries of a consolidated or an incorporated city or town; and
 - Project is located outside of the territorial authority for comprehensive planning defined as the contiguous unincorporated area within two (2) miles from the corporate boundaries of a municipality.
- Cross a stream having an upstream drainage area of less than or equal to fifty (50) square miles (drainage area includes all land area contributing to runoff above the project site and is determined from the United States Geological Survey 7.5 minute series quadrangle maps).

The designer must provide documentation to the EWPO that each of these criteria has been met. If challenged, the designer will be responsible for providing justification that supports the claim that all exemption criteria have been satisfied.

Logjam Removal Exemption

In order for a project to qualify for the logjam removal exemption, all of the following criteria must be met:

- The logjam must be at least partially within the bridge right-of-way;
- Equipment must be operated from the bridge or bank within the right-of-way;
- No equipment can be placed in the river or stream, and access for the equipment cannot extend beyond fifty (50) feet from the right-of-way;
- Work is not proposed within a salmonid stream (Appendix E-**Error! Bookmark not defined.**17-IDNR – Salmonid Streams);
- Work is not proposed in a natural, scenic, or recreational river (Appendix E-18 - IDNR - Indiana Scenic Rivers);
- Logs that are crossways in the channel will be cut, relocated, and removed from the floodplain;
- Logs maintained in the floodway will be properly anchored/secured to resist dislodging by flow of water and will not be placed in a wetland;
- Logs must be removed and secured with minimum damage to vegetation;
- Isolated or single logs that are embedded/lodged in the channel and do not span the channel must not be removed unless they are in close proximity to larger obstructions or pose a hazard to navigation;
- Leaning or damaged trees that are in immediate danger for falling into the waterway may be cut and removed if the trees are in close proximity to the obstruction, but the root system must be left in place;
- Construction access roads must be minimized with no change to the elevation of the floodplain;
- Work must exclusively be performed from one side of the waterway and crossing the waterway is prohibited;
- Appropriate erosion/sediment control measures should be installed to prevent sediment laden waters from entering the waterway; and
- All disturbed areas must be revegetated within 15 days without the use of tall fescue.

Utility Line Crossing Exemption

In order for a project to qualify for the utility line crossing exemption, all of the following criteria must be met:

- Tree and brush clearing are contained and minimized within the utility crossing area with no more than one (1.0) acre of trees removed from the floodway;
- Construction activities within the waterway between April 1 and June 30 (fish spawning season) will not exceed two calendar days;
- Best management practices will be used during construction to minimize erosion and sedimentation and disturbed areas will be revegetated following construction;
- Disturbed areas with 3:1 slopes or steeper will be stabilized with erosion control blankets or suitable structural armament;
- No pesticides will be used on the banks;
- If the utility line transports a substance that may cause water pollution (IC 13-11-2-260) it must be equipped with an emergency closure system;
- Meets the cover requirements for utilities placed below the bed of a river or stream as defined in Indiana Code (312 IAC 10-5-4);
- Meets the clearance requirements for lines placed above the stream bed as defined by Indiana Code (312 IAC 10-5-4); and
- The utility line is not placed in a dam or levee.

The utility line exemption must be coordinated with the IDNR by the affected utility company. *INDOT may not request application of the exemption on behalf of the utility company.*

Wetland Restoration Exemption

In order for a project to qualify for the wetland restoration exemption, all of the following criteria must be met:

- The measure does not obstruct more than five (5) percent of the cross section of the floodplain during a regulatory flood;
- The measure will not remove more than one (1.0) acre of forest;
- Following completion of construction, disturbed areas are revegetated;
- Any excavation that blocks a drain tile does not permanently alter the natural ground elevation;
- The streamward toe of a constructed berm or levee is at least one hundred (100) feet landward from the top of the bank of waterway;
- The construction of a berm or levee is limited to one side of the waterway, and there is not another berm/levee within two-thousand (2000) feet of the same waterway; and
- The elevation of a berm or levee is no more than two (2.0) feet higher than the natural ground surface measured at the lowest point along the berm/levee.

In order for a wetland restoration project to be considered under this exemption, INDOT must provide written notification to the IDNR. The notification must contain information of a sufficient detail to determine if the proposed activity meets the criteria listed in the exemption. IDNR will respond within ten (10) business days of the receipt of the notice. If the department does not raise any objections, the proposed activity is deemed qualified for the exemption. If an objection is raised, INDOT must apply for a CIF permit.

Outfall Exemption

An outfall is a closed conduit used for the transport and discharge of surface runoff or treated effluent to a waterway or swale. This includes all appurtenant channels, supply lines, energy dissipaters, and erosion control measures. The term does not include a system where the conduit is placed beneath the bed. In order for a project to apply for the outfall exemption, all of the following criteria must be met:

- Work is not proposed in a river or stream on the Outstanding Rivers List (Appendix E-19 - IDNR – List of Outstanding Rivers and Streams);
- Work is not proposed in a salmonid stream (Appendix E-17 - IDNR – Salmonid Streams);
- Work is not proposed below the ordinary high water mark of a navigable waterway (Appendix E-1 - IDNR List of Indiana Waterways Declared Navigable);
- The project does not require an individual Section 404 permit from the USACE;
- Tree removal and clearing will be minimized around the outfall area and less than one (1.0) acre of trees will be removed from the floodway;
- Construction activities within the waterway between April 1 and June 30 (fish spawning season) will not exceed two (2) calendar days;
- Best management practices will be used during construction to minimize erosion and sedimentation and disturbed areas will be revegetated following construction;
- Disturbed areas with 3:1 or steeper slopes will be stabilized with erosion control blankets or suitable structural armament;
- Any riprap must have an average diameter of six (6) inches and extend below the normal water level;
- The size of the outfall shall not exceed:
 - Ten (10) square feet in cross section flow area;
 - Five (5) feet deep (difference between lowest bank elevation and bottom of outfall);
 - An area of disturbance thirty (30) feet wide.
- Within the project area, the post construction ground surface elevation shall be less than six (6) inches above the preconstruction elevation;
- The outlet structure shall be:
 - Supported by a headwall, slopewall, or anchored end section; and
 - Conform to the bank of the waterway.
- A closure mechanism is provided if flow passes through the outfall in the reverse direction; and
- Construction debris and material not used as backfill shall be removed from the floodway.

No IDNR notification is required if the project qualifies for the exemption by meeting all of the listed criteria.

Maintenance Memorandum of Understanding

INDOT and IDNR also have a Maintenance Memorandum of Understanding (MOU) that exempts some projects from IDNR permitting (Appendix E-21 - IDNR – INDOT Maintenance MOU). Exempted projects include bridge deck patching, minor bridge repair, roadside maintenance (machine mowing, brush cutting, herbicide treatment, seeding or fertilizing, stump removal, etc.), slide repair, drainage ditch maintenance, and pipe lining. A project with work located under the hundred year flood elevation subject to IDNR permitting cannot apply the Maintenance MOU if the elevation of the roadway will be increased more than three (3) inches. The critical design consideration is whether the proposed work will change the original structure waterway opening. This can be evaluated and documented using the Bridge Replacement-in-Kind Worksheet. If the permanent impacts fall under the maintenance MOU the required temporary impacts will also be covered.

If a project does not meet the criteria listed in an exemption, an INDR CIF permit will be required. Typical INDOT projects which could require CIF permits include, but are not limited to:

- Bridge and/or culvert construction or widening;
- Stream bank stabilization;
- Channel modification and/or relocation;
- Temporary runaround structure construction, including approaches;
- Construction of access bridges and/or causeways; and
- Borrow pit excavation (this permit is generally applied for by the contractor).

Application Process

For all IDNR CIF permits, the most current State Form 42946, *Permit Application for Construction*, should be used (see Appendix E-39 - IDNR – State Form 42946). Instructions for completing this document are included on the form. IDNR also provides an Application Assistance Manual (<http://www.in.gov/dnr/water/4953.htm>) with detailed information on the submittal requirements. The IDNR uses this form for all IDNR permits discussed in this chapter.

An IDNR CIF checklist has been included in Appendix E-33 - IDNR – Construction in a Floodway – Checklist to assist the project designer with application preparation. In general, IDNR applications will require the following information:

- Project plans including:
 - Labels for streams, wetlands, existing vegetation, and boundary of 100-year floodway;
 - Property limits (including property owner names);
 - Existing and proposed structures;
 - Existing and proposed approach roads;
 - Construction limits;
 - Limits of channel work;
 - Vertical benchmarks for structures (Q100 elevation, flow-line elevation, bottom of structure elevation, and top of structure elevation) shown on cross sections; and
 - Hydraulic data table.
- IDNR early coordination letter from NEPA document;
- Photographs;
- Maps (location map and photo-orientation map);
- Public notice documents (State Forms 52086 and 50354);
- Hydraulic modeling and modeling checklist (if necessary);
- Mitigation and monitoring plan, if necessary (see INDOT Ecology Manual for IDNR mitigation requirements); and
- Description of temporary impacts associated with the project (stream crossings, pump-arounds, cofferdams, etc.).

INDOT-EWPO requires that designers evaluate and include the most likely measures needed to construct a project. Inclusion of this information in the permit application reduces delays during construction when pursuing modifications to IDNR permits. It also reduces permit violations when the contractor fails to obtain the necessary permit modifications. Items to include for temporary measures are:

- Type of fill material (must be non-erosive);
- Volume (cubic yards) and area (acres) associated with the temporary measures below Q100;
- Temporary acres of impact to any wetland(s);

- Plan or drawing showing the approximate location and dimensions of the proposed temporary measure(s);
- Expected amount of time the temporary measures will remain in place;
- Number and dimensions (diameter and length) of pipes required for a temporary stream crossing (if applicable); and
- Restoration plan which include an appropriate seed mix.

A separate IDNR CIF application should be prepared for each floodway that is impacted by the project. Therefore, if a project impacts two separate 100-year floodways, it will require two floodway permits.

Following the designer's submittal of the completed application to the EWPO, they will review the document and ask for any necessary revisions. Once all revisions have been incorporated into the application, EWPO staff will sign and submit it to IDNR. No filing fee is required for INDOT application submittals. IDNR processing time is dependent upon the magnitude of the project and the completeness of the submittal. Typically, six to nine months from the date of submittal is required. This includes a mandatory twenty-one (21) day public notice that the INDOT EWPO will initiate and complete. For the public notice, the project designer should submit IDNR – Form N4 – State Form 52086 and IDNR – Form N2 – State Form 50354 to the EWPO (see Appendix E-41), who will process these once IDNR has issued a project number.

For federally funded INDOT projects, the CIF permit will be valid for five (5) years from the date of issuance. For state funded INDOT projects, the CIF will be valid for two (2) years. A one-time permit renewal may be issued for a period not to exceed two(2) years if requested prior to the expiration of the initial permit.

7.2 NAVIGABLE WATERWAYS PERMIT

Background

Navigable Waterways Act permits are issued by IDNR for development activities in navigable waterways. The limit of IDNR jurisdiction on a navigable waterway is the ordinary high water mark (OHWM). Refer to the INDOT Ecology Manual for more information on the OHWM.

Typical INDOT projects requiring IDNR approval include, but are not be limited to the following:

- Channel modification and/or relocation;
- Bridge and/or culvert construction or widening;
- Stream bank stabilization;
- Temporary runaround construction; and
- Construction of access bridges and/or causeways.

An IDNR CIF permit can be combined with the Navigable Waterways permit. However, exemptions from the CIF permit do not exempt INDOT from obtaining a Navigable Waterways permit.

Application Process

Refer to the application process discussion in Section 7.2.

7.3 LAKE PRESERVATION ACT PERMIT

Background

Lake Preservation Act permits are issued by IDNR for development activities which occur at or lakeward of a public freshwater lakes' average normal shoreline. Typical work included in INDOT projects that may require permits under this act include:

- Dredging;
- Construction of seawalls;
- Re-facing of seawalls in public freshwater lakes; and
- Permanent fill material viewed as degrading the integrity of the resource.

The following water bodies are exempt from the requirements of the Act:

- Lake Michigan;
- Wolf Lake and Lake George in Hammond;
- Lake Shafer and Lake Freeman;
- Lakes created by or used for surface mining;
- Off-stream, privately-owned water impoundments constructed for the reduction of pollutants before discharge to public waters; and
- Public water supply reservoirs.

An IDNR CIF permit can be combined with a Lake Preservation Act permit. However, exemptions from the CIF permit do not exempt INDOT from obtaining a Lake Preservation Act permit.

Application Process

Refer to the application process discussion in Section 7.2.

7.4 LOWERING OF TEN ACRE LAKES ACT PERMIT

Background

IDNR issues permits under the Lowering of Ten Acre Lakes Act to provide safeguards against the lowering of a freshwater lake's water level as the result of a ditch and/or drain activity. Typical INDOT activities that may require a permit under the Lowering of the Ten Acre Lakes Act include:

- Ditch construction;
- Ditch reconstruction/maintenance;
- Tile drain installation; and
- Tile drain repair.

An IDNR CIF permit can be combined with a Lowering of the Ten Acre Lakes Act permit. However, exemptions from the CIF permit do not exempt INDOT from obtaining a Lowering of the Ten Acre Lakes Act permit.

Application Process

Refer to the application process discussion in Section 7.2.

7.5 IDNR PERMITTING SCENARIOS

The following examples are provided to illustrate when a permit may be required from IDNR. This list is not all inclusive. The final determination on what permits are required will be made by the IDNR.

- The replacement of a corrugated metal pipe (36" diameter and 60' long) under an existing state road is proposed. The upstream drainage area from this structure is 0.85 square mile. No public lakes are located within a half mile radius. No IDNR permitting is required since the drainage area is less than one (1) square mile, there is no navigable waterway, no lake impacts, and no public lake within close proximity.
- A culvert replacement project on a state road is proposed. The existing box culvert (80'L x 8'W x 5'H) will be replaced with a box culvert (90'L x 10'W x 5'H). The approach roads will not change from their existing configuration. The location meets the rural definition requirements from IDNR. The upstream drainage area from the structure is 27 square miles. No public lakes are located within a half mile radius of the project. This work is not covered under the INDOT-IDNR Maintenance MOU. This project meets the rural bridge exemption and will therefore not require a CIF permit. Since there is no navigable waterway, lake impacts, and/or public lake within close proximity, no other IDNR permits are required.
- INDOT proposes a culvert replacement project on a state road. The existing box culvert (8' wide, 5' tall, and 80' long) will be replaced with a new box culvert (10' wide, 5' tall, and 90' long). The approach roads will not change from their existing configuration. The location is within the city limits of Bloomington, Indiana. The upstream drainage area from the structure is 27 square miles. No public lakes are located within a half mile radius of the project. In addition, this work is not covered under the INDOT-IDNR Maintenance MOU. This project will require a **CIF permit** since it does not meet the rural bridge exemption. Lack of a navigable waterway, lake impact, and close proximity of a public lake rules out other IDNR permitting needs.
- A road widening project on a state road is proposed. Shoulder and lane widening will result in the replacement of an existing box culvert (80'L x 8'W x 5'H) with a new box culvert (150'L x 10'W x 5'H). The approach roads will be widened resulting in additional floodway impacts, including tree clearing and the relocation of a captured stream located within the existing roadside ditch. The location meets IDNR's rural definition. The upstream drainage area is 27 square miles. No lake impacts will occur and no public freshwater lakes are located within a half mile radius of the project. All of the project's floodway impacts cannot fit under the rural bridge exemption, which only covers structure work and not the approach widening and stream relocation. In addition, this work is not covered under the INDOT-IDNR Maintenance MOU. Because of this, an **IDNR CIF** permit will be required. Since there are no navigable waterway, lake impacts, and or public lake within close proximity, no other IDNR permits are required.
- A pipe-liner project within the city limits of Indianapolis is proposed. The drainage area upstream from the structure is 4 square miles. No lake impacts will occur and the project is not located within a half mile radius of any public freshwater lake. No IDNR CIF exemptions apply. However, this work is covered by the INDOT-IDNR Maintenance MOU, so no CIF will be required. Since there is no navigable waterway, lake impacts, and or public lake within close proximity, no other IDNR permits are required.
- A new bridge over the Ohio River is proposed. Work in the floodway will include the placement of piers within the river as well as the construction of approach roads. The upstream drainage area

from the new bridge is 2,500 square miles. The project is located in an area that meets the IDNR rural definition. No lake impacts will occur and no public freshwater lake is within a half mile radius. This project will require an **IDNR CIF** permit and a **Navigable Waterways Act** permit. It does not meet any of the exemptions or the maintenance MOU.

- A road widening project is proposed directly adjacent to a public freshwater lake. Work will include road widening and the installation of a sea wall at the toe of slope. No roadside ditches will be constructed within a half mile of the lake. No work will be conducted in a 100-year floodway. A **Lake Preservation Act** permit will be required due to the project's lake impacts. The absence of a floodway, navigable waterway, and roadside ditch construction (or other scoped work) that would lower the lake level rules out other IDNR permitting needs.
- A reconstruction project is proposed along an existing U.S. highway. Work will include replacement of the pavement and construction of new roadside ditches along both sides of the highway to improve drainage. No 100-year floodway will be impacted by this project. However, a public freshwater lake is located within a quarter mile from the ditch construction and the ditches will be below the lakes normal water level. A **Lowering of the Ten Acre Lakes Act** permit will be required. The absence of a floodway, navigable waterway, and lake impact rules out other IDNR permitting needs.
- A bridge rehabilitation project is proposed along an existing state highway. Work will include the repair of the bridge and approach slabs, end bents, joints, and railing. In addition, riprap for scour protection will be added along the piers below the existing flow line. The bridge is located in an urban area and the upstream drainage area is 232 square feet. The bridge rehabilitation project does not qualify for the Rural Bridge Exemption. The Bridge Replacement-in-Kind Non-modeling Worksheet indicates that the original structure waterway opening will be maintained. The permanent impacts fall under the Maintenance MOU. In addition, any temporary impacts required will also fall under the MOU.