

The loss of lives and property caused by floods and the damage resulting from floods is a matter of deep concern to Indiana affecting the life, health, and convenience of the people and the protection of property. The Indiana Floodplain Information Portal is designed to show flood risk associated with Indiana waterbodies and provide information specifically for local and state floodplain permitting. The information provided is based on the regulatory floodplain limits; floods exceeding the regulatory floodplain can and do occur. If you are seeking information regarding lake or dam permitting, see the corresponding section below, under the permitting information section.

Floodplain Information:

All streams have a floodplain, whether mapped or not. This FARA, and the information provided herein, is designed for sites along streams with a mapped floodplain. See page 2 for scenarios where this FARA should not be used and additional review from the DNR may be required. See the last page for additional unusual situations and further instructions.

The Best Available Floodplain Layer (BAFL) is the mapping developed by the DNR that provides the best flood risk information currently available. This information should be used for construction, planning, and flood risk assessment. The BAFL incorporates the National Flood Hazard Layer (NFHL) from FEMA's Flood Insurance Rate Maps (FIRMs) for AE zones. The layer has completed modeling and more detailed studies using more recent LiDAR data for areas designated as A zone on the FIRM or areas that were not identified on the FIRM. BAFL mapping exists for over 80% of streams in Indiana. BAFL mapping should not be used for insurance rating purposes or for mandatory flood insurance purchase requirements related to the National Flood Insurance Program. See the Flood Insurance Information section on the following pages for information on flood insurance requirements. Common flood hazard zones are described below; to find the flood hazard zones associated with your point of interest, see the legend on page 1.

- **Floodway (FEMA Zone AE Floodway, DNR Detailed, DNR Approximate):** The floodway includes the stream channel and the overbank area necessary to carry the 1% annual chance flood, also known as the base flood, which has a 1% chance of being equaled or exceeded in any given year. The water surface at this level is referred to as the Base Flood Elevation (BFE). Land in this area is considered to have a high flood risk. Construction in the floodway area requires a permit from the DNR, Division of Water. Local floodplain ordinances require local construction permits. Flood insurance is strongly recommended and may be required by FEMA. See the Permitting Information and Flood Insurance Information sections of this document for more information.
- **Special Flood Hazard Area (FEMA Zone A, FEMA Zone AE without floodway, DNR Approximate without floodway):** The Special Flood Hazard Area is the land subject to the 1% annual chance flood. The 1% annual chance flood, also known as the base flood, has a 1% chance of being equaled or exceeded in any given year. The water surface at this level is referred to as the Base Flood Elevation (BFE). Land in this area is considered to have a high flood risk. Construction in the floodway area requires a permit from the DNR, Division of Water. To determine the floodway portion of the Special Flood Hazard Area, use the link at the bottom of page 2 to submit a request to the Division of Water. Local floodplain ordinances require local construction permits. Flood insurance is strongly recommended and may be required by FEMA. See the Permitting Information and Flood Insurance Information sections of this document for more information.

- Special Flood Hazard Area (FEMA Zone AH – Ponding, FEMA Zone AO – Sheet Flow): Land in this area is considered to have a high flood risk. These areas are subject to the 1% annual chance flood with average depths of 1 to 3 feet. A Construction in the Floodway permit is not required from the DNR, Division of Water. Local floodplain ordinances require local construction permits. Do not use the BFE generated by this tool for zones AH and AO; please refer to the FEMA Flood Insurance Study or FIRM for the depth or flood elevation. Flood insurance is strongly recommended and may be required by FEMA. See the Permitting Information and Flood Insurance Information sections of this document for more information.
- Fringe (DNR Detailed, DNR Approximate, FEMA Zone AE): Area outside the floodway but still subject to flooding during the 1% annual chance flood. The 1% annual chance flood, also known as the base flood, has a 1% chance of being equaled or exceeded in any given year. Land in this area is considered to have a high flood risk. A Construction in the Floodway permit is not required from the DNR, Division of Water. Local floodplain ordinances require local construction permits. Flood insurance is strongly recommended and may be required by FEMA. See the Permitting Information and Flood Insurance Information sections of this document for more information.
- Coastal High Hazard Area (FEMA Zone VE): Area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. In this area the normal water surface level and the anticipated wave height equals the 1% annual chance flood, also known as the base flood, which has a 1% chance of being equaled or exceeded in any given year. The water surface at this level is referred to as the Base Flood Elevation (BFE). Land in this area is considered to have a high flood risk. Construction in the coastal high hazard area and below the ordinary high water mark of Lake Michigan requires a permit from the DNR, Division of Water. Local floodplain ordinances require local construction permits. Flood insurance is strongly recommended and may be required by FEMA.
- Additional Floodplain Area (0.2% Annual Chance Flood): Land in this area is considered to have a moderate risk of flooding. These areas are subject to the 0.2% annual chance (500-year) flood. A Construction in the Floodway permit is not required from the DNR, Division of Water. Local floodplain ordinances may require local construction permits; contact the local Floodplain Administrator for more information. Flood insurance is strongly recommended.
- Additional Floodplain Area (Zone X – Protected by Levee): This zone includes areas protected from the 1% annual chance flood by levee, dike, or other structure subject to failure during larger floods. A Construction in the Floodway permit is not required from the DNR, Division of Water. Local floodplain ordinances may require local construction permits; contact the local Floodplain Administrator for more information. Flood insurance is strongly recommended.

Permitting Information:

The Flood Control Act permit and local floodplain permit determinations on page 1 of this FARA are based on the point of interest selected in the map. If a structure or the limits of a construction project extend beyond the flood hazard zone where the point of interest lies, the permit determinations may not be accurate for the entire structure or construction project. A new Floodplain Analysis & Regulatory Assessment should be generated with a point of interest in each flood hazard zone associated with the area of interest.

Flood Control Act (Construction in the Floodway):

- The Flood Control Act (IC 14-28-1) requires the prior approval of the DNR, Division of Water for most construction in the floodway including an obstruction, fill, excavation, or the construction of a building. See <https://www.in.gov/dnr/water/regulatory-permit-programs/exemptions/> for information on projects that may not require a permit.

A permit application form and permit application assistance manual can be obtained from our website at: <https://www.in.gov/dnr/water/regulatory-permit-programs/>. You may choose to file an electronic application through our website at: <https://www.in.gov/dnr/water/regulatory-permit-programs/file-a-permit-application-online/>. Please be aware that in addition to the application fee, there is a \$15.00 Enhanced Access Fee to submit an electronic application.

- Local Ordinances / Permitting: For proposed construction at the point of interest marked on the map, you may also be required to obtain permits from or coordinate with the local floodplain administrator, plan commission, zoning office, and county drainage board.

Construction permitting by local government entities is independent of the State's permitting authority. Local floodplain ordinances require that the lowest floor of a new building or an addition to an existing building proposed in the Special Flood Hazard Area (SFHA) be elevated at least 2 feet above the Base Flood Elevation (BFE). Some communities in the state regulate to the additional floodplain area also known as the 0.2% chance flood. If a basement is included, the basement floor shall be considered the lowest floor. Special Flood Hazard Area (SFHA) means the land in the floodplain within a community subject to a 1% or greater chance of flooding in any given year. The area may be designated as Zone A, AE, AH, AO, AR, A99 or VE on the Flood Insurance Rate Map (FIRM). The area may also be designated on the DNR best available floodplain layer or designated by the community as a flood prone area.

- Indiana Department of Environmental Management: You may also be required to obtain a construction stormwater general permit from the Indiana Department of Environmental Management (IDEM) if the proposed project will disturb one acre or more. Inquiries may be sent to Stormwat@idem.IN.gov. IDEM permits may also be required for impacts to wetlands and streams especially if any work is proposed below the ordinary high-water mark of a waterbody. Go to waterways.IN.gov to submit a permitting determination request, call (317) 233-8488 or (800) 451-6027, or visit the IDEM webpage at <https://www.in.gov/idem/cleanwater/> for more information.
- Indiana Department of Health: The state rules which address on-site sewage systems in a floodplain are IDOH Rule 410 IAC 6-8.3-63(e), 70(c)(2), and 72(c)(2) for residential systems and 410 IAC 6-10.1-71(e), 77(c)(2), and 80(c)(2) for commercial systems. The Indiana Department of Health (IDOH) is responsible for administering 410 IAC 6-10.1 and County Health Departments are responsible for administering 410 IAC 6-8.3. The Department of Natural Resources requires that all on-site sewage systems in or near a floodway meet IDOH requirements. Both subsurface systems and elevated systems are prohibited in all areas below the BFE; it is highly likely that either a connection to a public sewer system or an off-site system will be required in an area that is above the BFE. The lids of all septic and dosing tanks must also

be above the BFE. It is recommended that you contact IDOH for compliance with commercial system requirements and your County Health department for compliance with residential system requirements. If you have questions regarding the state rules, you may wish to contact:

Alice Quinn, Senior Environmental Manager
Environmental Public Health Division
Indiana Department of Health
2 North Meridian Street, 7-K
Indianapolis, IN 46204
Telephone: (317) 518-4388
Email: alquinn@health.in.gov

- Indiana State Chemist: You may also be required to obtain permits from the Indiana State Chemist, especially if any work is proposed involving pesticide or fertilizer applications. To contact the Office of Indiana State Chemist call (765) 494-1492; or visit their webpage at <https://www.oisc.purdue.edu/index.html> for more information.

Lake Preservation Act:

- The Lake Preservation Act (IC 14-26-2) requires the approval of the DNR, Division of Water for any construction or project that is proposed below the legal or normal water level, and located over, along, or lakeward of the shoreline of a public freshwater lake, or within 10 feet landward of the shoreline for construction of a wall whose lowest point is below the legal lake level. A list of public freshwater lakes can be found in the "Public Freshwater Lake List" document at <https://www.in.gov/nrc/nonrule-policy-documents-npd/>. See <https://www.in.gov/dnr/water/regulatory-permit-programs/exemptions/> for information on projects that may not require a permit. Contact the DNR, Division of Water for more information on permitting requirements if working near a public freshwater lake or near or on a lake not on the Public Freshwater Lake list.

Regulation of Dams:

- A permit under the Flood Control Act (IC 14-28-1) and Regulation of Dams (IC 14-27-7.5) is required for a proposed high-hazard dam, or work to an existing high-hazard dam, or for a proposed dam or work to a dam if two or more of the following criteria are met:
 - the drainage area above the dam is greater than one square mile, or;
 - the height of the dam is more than 20 feet as measured from the lowest point in the natural streambed under the centerline of the dam to the crest of the dam, or;
 - the maximum volume of water impounded by the dam to the crest (high pool level during the design storm event) is more than 100 acre-feet, or;
 - upon receiving a petition from a downstream property owner or resident, the DNR, Division of Water deems the dam a high hazard dam

If a permit is required for a proposed dam, or work to an existing dam, it will be necessary for you to obtain the services of a registered professional engineer experienced in dam design and construction to make a complete geotechnical and hydrologic/hydraulic engineering evaluation of the project, develop plans and specifications, and submit the technical documentation to the DNR, Division of Water with an application for review. Your engineer will need to work with other technical professionals (i.e., geotechnical, engineering geologists, structural engineers, etc.) to develop safe, adequate plans and specifications.

In order to expedite the permitting process, the Project Engineer should meet with the DNR, Division of Water staff to discuss details of the project before work commences on the plans, specifications, and engineering report. It is important that all survey, hydrology/hydraulic, geotechnical, structural, and mechanical engineering evaluations are complete and accurate prior to submitting the application for a permit.

If a dam does not require a permit, we would suggest the following action:

- consult with a professional engineer experienced in dams design, maintenance, and repair to develop a design that will minimize the risk to the downstream properties; the DNR, Division of Water does not offer design services.
- upon completion of the project, obtain a set of as-built plans signed and stamped by a Professional Engineer certifying that the dam was constructed in accordance with acceptable engineering standards.

For information on erosion control, proper maintenance, regulation, etc., the applicant is encouraged to follow the Indiana Dam Safety Inspection Manual and General Guidelines for New Dams and Improvements to Existing Dams in Indiana found on the DNR, Division of Water Web page at <https://www.in.gov/dnr/water/dams-and-levees/>.

Residential Construction in a Floodway:

- New residential construction in the floodway area is prohibited under the Flood Control Act, except in the floodway of the Ohio River. New non-residential buildings proposed in the floodway area will be required to be constructed at least 2 feet above the Base Flood Elevation (BFE). If a basement is included, the basement floor shall be considered the lowest floor. New building construction, including residential and non-residential, proposed in the floodway area of the Ohio River will be required to have the lowest floor constructed at least 2 feet above the Base Flood Elevation (BFE). If a basement is included, the basement floor shall be considered the lowest floor.
- An addition to an existing lawful residence that's located in the floodway does not require a permit from the DNR, Division of Water if the structure was constructed prior to January 1, 1973, and the cost of the addition, in combination with all other additions to the residence since the residence was originally built, does not equal or exceed 50% of the market value of the original, pre-altered residence. The cost of repair should be based on a cost of material that is equal to average retail value and labor that is based on average contractor's fees. The market value of a residence does not include the value of the land on which the residence is built.

If fill is proposed in the floodway to elevate an addition that meets the above criteria, prior approval from the DNR, Division of Water is required for the fill.

- The reconstruction of a residence in the floodway area is authorized by a general license if specific criteria of the Flood Control Act, IC 14-28-1-24(B)(2), is met. To ensure that the proposed reconstruction project fulfills these requirements, please contact the DNR, Division of Water for more details.

Flood Insurance Information:

- Under the federal regulations of FEMA, the National Flood Insurance Program (NFIP) requires the purchase of flood insurance on buildings in the FEMA mapped Special Flood Hazard Area (Zones A, AE, AH, AO, AR, A99, or VE) that have a federally backed mortgage. DNR-developed Best Available Floodplain Layer mapping should not be used for insurance rating purposes or for mandatory flood insurance purchase requirements related to the NFIP. The National Flood Hazard Zone associated with your point of interest is listed on page 1. Flooding is the most frequent and costly disaster in Indiana. The risk for flooding changes over time due to erosion, land use, weather events, and other factors. Flooding occurs not only in the high-risk Special Flood Hazard Areas, but also in low to moderate-risk areas. About 42% of flood insurance claims nationwide come from areas designated as having a low or moderate flood risk. Therefore, it is strongly recommended to obtain a flood insurance policy even if it is not federally required on your property.
- If the property owner wishes to have the federal requirement to purchase flood insurance waived, they must prove that 1) the structure or property is on natural ground levels with an elevation higher than the Base Flood Elevation (BFE); or that 2) the structure or property is located outside of a Special Flood Hazard Area (SFHA). If one of those conditions exists, the property owner can apply for a Letter of Map Amendment (LOMA) from the Federal Emergency Management Agency (FEMA). A LOMA is a letter which allows a mortgage lender to waive federal flood insurance requirements by stating that an existing structure, property, or portion of a property that has not been elevated by fill is not located in the SFHA. The final decision regarding flood insurance is left to the mortgage lending institution.

If the structure or property is located inside of the SFHA, the property owner may apply for a LOMA if it can be demonstrated that it is located on natural ground levels with an elevation higher than the Base Flood Elevation (BFE). Specific elevation information must be submitted with the LOMA application, typically documented by a licensed surveyor or engineer.

If the structure or property is located outside of the Special Flood Hazard Area (SFHA), the property owner may apply for a Letter of Map Amendment Out-As-Shown (LOMA-OAS). Elevation information is not required in this review process. If requesting a LOMA-OAS, please write "Out-As-Shown" at the top of the application form.

Visit <https://www.fema.gov/flood-maps/change-your-flood-zone/paper-application-forms> to submit a LOMA application online or to obtain the LOMA application forms and instructions. These can also be obtained by contacting FEMA toll-free at 1-877-336-2627. There is no fee for a LOMA application, although fees may be associated with hiring a surveyor to obtain the elevation information for the Elevation Certificate or LOMA application form.

If the LOMA is issued by FEMA and the mortgage lender accepts the LOMA determination, the property owner may be reimbursed up to one year of flood insurance payments. Be aware that regardless of if FEMA issues a LOMA, the mortgage lender has the final decision regarding flood insurance requirements. Finally, note that if a LOMA is issued by FEMA, flood insurance may still be purchased and is encouraged. The policy may have a lower premium and can provide coverage for events larger than the 1% annual chance flood.

Disclaimer:

This Floodplain Analysis and Regulatory Assessment (FARA) should not be construed as a local building permit, nor is it a waiver of the provisions of any local building or zoning ordinances. Additionally, this FARA does not relieve the permittee of the responsibility of obtaining permits, approvals, easements, etc. under other regulatory programs administered by, but not limited to, the U.S. Army Corps of Engineers, County Drainage Board, Indiana Department of Environmental Management, Indiana Department of Health, and local, city, or county floodplain management, planning or zoning commissions.

When using this FARA for a determination of permitting requirements, the user shall maintain a copy of the FARA for documentation purposes. The DNR, Division of Water will not have a record of this FARA.

The approximate ground elevation shown on page 1 of this FARA is based on the latest available ground elevations available to the state. This elevation is provided for your information but may not be detailed or accurate enough to be used for purposes of applying for a Letter of Map Amendment.

Unusual Situations:

If any of the following situations apply, the user should disregard any BFE provided and contact the Division of Water for further guidance. Page 2 of this FARA lists other scenarios that require DNR staff review.

- The site is in a Zone A on the NFHL but unmapped or less than one square mile drainage area on the BAFL.
- The drainage area at the point of interest is less than one square mile. If the Flood Elevation Point selected is downstream of the site, it cannot be used for the point of interest upstream. The DNR, Division of Water does not provide engineering services to develop base flood elevations or discharges for waterway stretches with a drainage area of less than one square mile. Due to the small drainage area of this point, floodplain planning is delegated to local drainage and stormwater management ordinances. Therefore, in order to determine the base flood elevation for this site, the property owner or local community will be responsible to hire an engineering consultant to establish the base flood elevation and address any local drainage problems which may exist at the site.
- The highlighted Flood Elevation Point is not visible on the map on page 1, even at the 1:24,000 scale.