
NATURAL RESOURCES COMMISSION
Information Bulletin #57**Subject:** Cumulative Effects under the Flood Control Act**1. Purpose**

The purpose of this information bulletin is to establish uniform practices for the consideration of the cumulative effects of permits sought under the Flood Control Act ([IC 14-28-1](#)) and rules adopted by the Natural Resources Commission (Commission) at [312 IAC 10](#). In particular, the information bulletin is intended to assist with the implementation of [IC 14-28-1-22\(e\)](#) and [IC 14-28-1-22\(f\)](#) and [312 IAC 10-2-18](#). The Department of Natural Resources (DNR) shall consider the cumulative effects of any construction project governed by the Flood Control Act under these policies and procedures.

As used in this information bulletin, the cumulative effects study area is defined as follows:

- (A) the project area within the floodway; and
- (B) those areas upstream and downstream that are determined by the DNR to have potential floodway impacts.

2. Hydrologic-Hydraulic Assessments and the Impacts to Public Safety

The DNR's Division of Water shall establish the cumulative effects study area according to the "General Guidelines for the Hydrologic-Hydraulic Assessment of Floodplains in Indiana" (December 2002). The Division of Water shall determine a project's technical cumulative effects using the procedures outlined in the text entitled "General Guidelines for the Hydrologic-Hydraulic Assessments of Floodplains in Indiana" (December 2002). Emphasis shall be given to Chapter 3, which provides specific guidance on cumulative effect assessments. The Division of Water shall also address the cumulative effect on public safety, referred to in the Flood Control Act as "unreasonable hazard to the safety of life and property", based on the definition contained in [312 IAC 10-2-40](#).

3. Impacts to Fish, Wildlife, or Botanical Resources

The Division of Fish and Wildlife shall conduct the evaluation of cumulative effects upon fish, wildlife, or botanical resources. The evaluation process shall include solicitation and documentation of specific comments from the DNR's Division of Fish and Wildlife and the DNR's Division of Nature Preserves. If a property administered by the DNR's Division of Outdoor Recreation, Division of Forestry, or Division of State Parks and Reservoirs is reasonably likely to be affected by a construction project, specific comments shall be solicited and documentation included from the applicable Division or Divisions.

The assessment for fish, wildlife, or botanical resources shall include a review of the available documentation in the "Unity" database (examples: permits and violations) within the cumulative effects study area. The DNR shall conduct research within the DNR Unity and Natural Heritage databases, fisheries surveys, the permit application and background information provided, and conduct a field inspection, if applicable. A DNR biologist would document what was reviewed for the project file.

The cumulative effects analysis shall include documentation of the material reviewed and its location for the project file.

The DNR shall identify other actions affecting the natural resources and ecosystems in the cumulative effects study area. To assist in developing a context for the review, the DNR shall document historical and published data and findings, including IDEM listings of impaired biotic communities within the cumulative effects area. The DNR shall include known past, current, and reasonably foreseeable actions, which have a documented effect within the floodway, that may affect the fish, wildlife, or botanical resources in the cumulative effects study area.

The assessment shall consider the species identified in the "Roster of Indiana Animals, Insects, and Plants that are Extirpated, Endangered, Threatened, or Rare (also described as Special Concern)", Information Bulletin #2 (Fourth Amendment), August 1, 2007, published in the Indiana Register at [20070815-IR-312070469NRA](#). The assessment shall discuss how and to what extent the project, plus any known past, current, and reasonably foreseeable future projects in the waterway, may affect each species, as well as a listing of all scientific literature and studies used by a DNR biologist in the analysis.

If a proposed project involves a waterway that is included by the Commission at [312 IAC 7-2](#) as a natural, scenic, and recreational river system in Indiana, this inclusion shall be documented in the project file. Any such river or stream segment shall be addressed under [IC 14-29-6-10](#).

If a proposed project involves a stream reach that is within one-half mile of a nature preserve dedicated under [IC 14-31-1](#), the nature preserve shall be named in the project file. The analysis shall provide documentation pertaining to the dedicated nature preserve, which includes the following:

- (A) A full description of the upstream and downstream boundaries of the project reach and the nature preserve.
- (B) Analysis of how the project, plus all known past, current, and reasonably foreseeable future projects, may affect the nature preserve.
- (C) A statement by DNR whether the nature preserve will be altered in a way that requires action under [IC](#)

[14-31-1-15.](#)

The DNR shall characterize the resource and ecosystem in general terms as to the relative quality and level of disturbance from previous permitted and nonpermitted actions. The characterization shall include a general statement regarding current level of development and a general trend of cumulative effects in the study area's ecosystem.

For each cumulative effect, the DNR shall identify the important cause and effect relationships following a discussion of the "quantified and detailed information". A DNR biologist shall identify known or likely impacts to fish, wildlife, or botanical resources in the cumulative effects study area.

The DNR will also determine the magnitude and significance of the cumulative effects. A form similar to the one set forth in the Appendix shall summarize the identified effects and shall be made a part of the record on cumulative effects for the proposed project. The form shall include the project purpose, as well as alternatives considered and any required mitigation.

As a minimum, the analysis of the cumulative impacts shall include the following:

- (A) Habitat loss.
- (B) Habitat fragmentation.
- (C) Habitat change.
- (D) Habitat enhancement or conversion.

The DNR shall include in its analysis of cumulative effects a discussion of alternatives to the proposed project, as well as mitigation. As a minimum, this discussion shall include the following to offset adverse site-specific or cumulative effects:

- (A) Wetland restoration.
- (B) Stream enhancement.
- (C) Riparian restoration and revegetation.
- (D) Reforestation.

4. Listing and the Cumulative Effects Form

The DNR shall create a reference list of every known past, current, and reasonably foreseeable project that was considered as part of the cumulative effects analysis for the proposed project. The list shall be placed in and be made part of the project file. The list shall include identifying information that is sufficient for interested persons to find and obtain additional information regarding the listed projects in publicly available files.

With every Construction in a Floodway Permit's summary sheet, the DNR shall include brief comments on the relevant components of the cumulative effects analysis for the project on a form to be maintained with the permit file and be structured substantially as attached in the Appendix.

**APPENDIX
CUMULATIVE EFFECTS ANALYSIS FORM**

Permit Application No: _____ County: _____

Project Area: _____

Project Description (include type of work being done and any materials, if applicable): _____

Hydrologic-Hydraulic Assessments/Impacts to Public Safety	Yes/No	Comments
Is flooding likely to occur as a result of this project?		
Will there be a risk to public safety as a result of this project?		
Impacts to Fish, Wildlife, or Botanical Resources		
Will there be an effect on botanical resources?		If yes, please list species observed:
Will any potential wetlands be affected? Any wetlands within or adjacent to project site?		If yes, list type of wetland and location to project site:
Will there be an impact to mammals, birds, reptiles, or amphibians and their habitat (including nesting areas)?		If yes, please list species observed or found evidence of:
Will there be an impact to fish or mussels and their habitat?		If yes, please list species observed or found evidence of:
Will there be an impact to the habitat of endangered species?		If yes, please list species and address taking:

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Will there be increased erosion, sedimentation, or landslides?		
Were any contaminants observed?		If yes, please describe:
Is the river/stream affected by the project on the list of natural, scenic, or recreational rivers in Indiana?		
Is the river/stream affected by the project on IDEM's list of impaired biotic communities?		
Were any alternatives considered?		If yes, please describe:
Is mitigation required?		If yes, please describe:
Impacts to DNR Properties		
Is there a dedicated nature preserve on or within one-half mile of the project site?		If yes, please list name of nature preserve:
Is a state forest, state park or reservoir, or fish and wildlife area, on or adjacent to the project site?		If yes, please list name of property:

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