



Joint Public Notice

Public Notice No.	Date:	Closing Date:
RGP 001 (ID No. LRL-2009-488-ncc)	15 Jan 10	N/A
LRC-2009-417/LRE-1999-1000031		

**US Army Corps
of Engineers**
Louisville District
Detroit District
Chicago District

Please address all comments and inquiries to:
U.S. Army Corps of Engineers, Louisville District
ATTN: Ms. Norma C. Condra, CELRL-OP-FN, Rm 752
P.O. Box 59
Louisville, Kentucky 40201-0059
Phone: 502-315-6680

NOTICE ANNOUNCING THE ISSUANCE OF A REGIONAL GENERAL PERMIT

This notice announces that on December 15, 2009 the Louisville, Detroit and Chicago Districts U.S. Army Corps of Engineers (the Districts) reissued a Regional General Permit (RGP), in accordance with Title 33 CFR 325.5 (C)(1), published in the Federal Register, Volume 51, No. 219, pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (CWA).

COVERAGE AREA: All Section 10 waters and Section 404 waters in the State of Indiana.

New Construction Activities:

This RGP authorizes activities associated with the construction or installation of new facilities or structures. Typically, these include residential, commercial, industrial, institutional, and recreational activities that have been granted a Section 401 Water Quality Certification (WQC) from the Indiana Department of Environmental Management (IDEM), if required. These activities include but are not limited to shoreline alteration, filling and grading, dredging, channelization, boat mooring, launching ramps, stormwater, sediment, and erosion control activities, roads, infrastructure and utilities, provided the individual and cumulative impacts are minimal.

In addition, if the proposed discharge is for shoreline alteration within the Counties in Indiana listed below (regardless of the acreage or linear foot limitations) the RGP notification form must be submitted to the IDEM and the Corps. Those Counties are: Adam, Allen, DeKalb, Elkhart, Jasper, Kosciusko, LaPorte, Lagrange, Lake, Marshall, Newton, Noble, Porter, St. Joseph, Starke, Steuben and Whitley Counties. Also, if the proposed discharge is for shoreline alteration on Morse or Geist Reservoirs the RGP Notification form must be submitted to the Corps and the IDEM regardless of the location, acreage and/or linear foot limitations.

Agriculture and Mining Activities:

This RGP authorizes activities for agriculture and mining (excluding surface coal mining). These include but are not limited to work or discharges of dredged or fill material associated with buildings or work pads, stock piling of material, staging/loading/unloading areas, roads, land leveling, berms, dikes, dams, ditch construction, drainage facilities, and erosion and water control activities that have been granted a Section 401 WQC from the IDEM, if required. This RGP does not affect those agricultural and mining activities that are exempt in accordance with 33 CFR Part 232.4.

EFFECTIVE DATE: December 15, 2009

MAXIMUM LIMITATIONS:

1. Loss of waters of the United States (U.S.) in special aquatic sites, including wetlands, is limited to 1.0 acre or less;
2. Loss of waters of the U.S. is limited to 1,500 linear feet of stream channel, not to exceed 1.0 acre.

These losses of waters are defined as waters of the U.S. that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The loss of stream bed includes the linear feet of stream bed that is filled or excavated;

3. Dredging in navigable waters is limited to 10,000 cubic yards;
4. Structures and fills for docking and mooring are limited to similar permitted structures and fills in the vicinity;

SHORE PROTECTION PROJECTS IN LAKE MICHIGAN

Shore protection in Lake Michigan include seawalls, revetments, and bulkheads (constructed of wood, concrete, riprap, gabions, steel or fabric-formed concrete) constructed at the existing water line, parallel to the shoreline orientation.

Shore protection projects on Lake Michigan will not:

1. Exceed 300 linear feet in length and 10 feet in width below the OHWM except in those instances where additional materials may be required in order to maintain the structural integrity of the proposed design;
2. Occur within 200 feet of the mouth of any waterway that flows into or out of Lake Michigan;
3. Be used to reclaim land lost to erosion;
4. Extend no further than existing structures on adjacent land, except in those instances where additional materials may be required in order to maintain the structural integrity of the proposed design;
5. Involve dredging or filling beyond that required to install the shore protection; and
6. Impede public access to the shoreline.

For any structure that has the potential for trapping littoral drift material and to ensure the protection of any adjacent riparians, a twenty (20%) percent sand overfill must be included as a part of the proposed design.

Shoreline structures will be designed to withstand the expected wave forces of the Lake. Steepening of stone structure faces that include a stone toe construction will be allowed on a case-by-case basis; and

temporary construction activities to access the site, which are limited to the use of barges in order to transport heavy equipment, will be authorized under this permit. If temporary dig-in of the substrate from the barge is necessary in order to transport equipment to the work site, the applicant is required to provide this information in the narrative.

RESTRICTIONS/SUSPENSIONS:

The following Nationwide permits have been suspended in Indiana and have been replaced with the RGP:

- 7 Outfall Structures and Associated Intake Structures
- 11 Temporary Recreational Structures
- 13 Bank Stabilization
- 14 Linear Transportation Projects
- 15 U.S. Coast Guard Approved Bridges
- 18 Minor Discharges
- 19 Minor Dredging
- 25 Structural Discharges
- 29 Residential Developments
- 36 Boat Ramps
- 39 Commercial and Institutional Developments
- 40 Agricultural Activities
- 41 Reshaping Existing Drainage Ditches
- 42 Recreational Facilities
- 43 Stormwater Management Facilities
- 44 Mining Activities

The NWP's that have not been suspended and that may be used in lieu of the RGP are:

- 1 Aids to Navigation
- 2 Structures in Artificial Canals
- 3 Maintenance
- 4 Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
- 5 Scientific Measurement Devices
- 6 Survey Activities
- 8 Oil and Gas Structures on the Outer Continental Shelf
- 9 Structures in Fleeting and Anchorage Areas
- 10 Mooring Buoys
- 12 Utility Line Activities
- 16 Return Water from Upland Contained Disposal Areas
- 17 Hydropower Projects
- 20 Oil Spill Cleanup
- 21 Surface Coal Mining Operations
- 22 Removal of Vessels
- 23 Approved Categorical Exclusions
- 24 Indian Tribe or State Administered Section 404 Programs
- 27 Aquatic Habitat Restoration, Establishment, and Enhancement Activities
- 28 Modifications of Existing Marinas
- 30 Moist Soil Management for Wildlife
- 31 Maintenance of Existing Flood Control Facilities
- 32 Completed Enforcement Actions
- 33 Temporary Construction, Access and Dewatering
- 34 Cranberry Production Activities
- 35 Maintenance Dredging of Existing Basins
- 37 Emergency Watershed Protection and Rehabilitation

- 38 Cleanup of Hazardous and Toxic Waste
- 45 Repair of Uplands Damaged by Discrete Events

- 46 Discharges in Ditches
- 47 Pipeline Safety Program Designated Time Sensitive Inspections and Repairs
- 48 Existing Commercial Shellfish Aquaculture Activities
- 49 Coal Remining Activities
- 50 Underground Coal Mining Activities

RESTRICTIONS: See the terms and Special Conditions of the attached Section 401 WQC issued by IDEM on December 11, 2009. The work authorized by this RGP will also be subject to the attached General Conditions and any other Special Conditions necessary to reduce impacts to the minimum level.

MITIGATION REQUIREMENTS

1. Impacts resulting from the loss of waters by relocation, encapsulation, or channelization of greater than 300 linear feet of intermittent or perennial stream shall require mitigation;
2. The loss of greater than 0.10 acre of special aquatic sites (including wetlands) and/or loss of waters of the U.S. causing more than minimal effects shall require mitigation;
3. Other work or structures in navigable waters will be evaluated on a case-by-case basis and may include mitigation to reduce the impacts to minimal levels.

NOTIFICATION/APPLICATION PROCEDURES:

Applicants are required to submit the IDEM RGP Notification form when notifying agencies or applying for authorization under the RGP. A copy of the IDEM's Section 401 WQC is attached to this notice. Notification to the IDEM is required for all projects. The following table summarizes the type of notification/application to be submitted and which agency to submit it to:

Proposed Work			Type of Application or Notification Required		Send To	
			<i>IDEM Section 401 WQC Application</i>	<i>IDEM RGP Notification Form</i>	<i>IDEM</i>	<i>Corps</i>
<u>Discharge > 0.1 acre</u>			Yes	No	Yes	Yes
Loss of waters ? 0.1 acre	In wetlands		No	Yes	Yes	Yes
	In other waters	? 300 Linear Feet (LF)	No	Yes	Yes	No
		? 300 LF of REC	Yes	No	Yes	No
		> 300 LF	Yes	No	Yes	Yes
Work in navigable waters			Yes	No	Yes	Yes
Shore alteration projects in Adams, Allen, DeKalb, Elkhart, Jasper, Kosciusko, LaPorte, Lagrange, Lake, Marshall, Newton, Noble, Porter, St. Joseph, Starke, Steuben and Whitley Counties, or on Morse or Geist Reservoirs in Marion and Hamilton Counties.*			No	Yes	Yes	Yes

Note: REC - relocation, encapsulation, channelization of stream

*Certain construction activities in waters of the U.S. within the State of Indiana under Section 404 of the Clean Water Act of 1977 that are also regulated by the IDNR as public freshwater lakes will be covered under the Programmatic General Permit (RGP) dated December 4, 2007, and will not be covered under this RGP.

The following paragraphs explain the table:

1. If the proposed loss of waters of the U.S. is more than 0.1 acre, up to 1.0 acre, a formal Section 401 WQC application must be submitted to the IDEM and a copy furnished to the Corps.
2. If the proposed loss of waters of the U.S. is 0.1 acre or less, the RGP Notification form must be submitted to the IDEM and in some instances to the Corps. The Corps does not require notification where the loss of waters of the U.S. is 0.1 acre or less unless the work involves greater than 300 linear feet of stream channel or shoreline (see "3" below) or is located in wetlands, or navigable waters (see "4" below) or the work involves shoreline alteration as specified in paragraph "5" below.
3. If the proposed loss of waters of the U.S. is less than or equal to 300 linear feet of stream channel or shoreline (excluding the areas identified in paragraph 5 below and stream relocation, channelization, or encapsulation), the RGP Notification form must be submitted to the IDEM. If the proposed loss of waters involve the relocation, channelization, or encapsulation of any length of stream channel, a formal Section 401 WQC application must be submitted to the IDEM. If the proposed loss of waters of the U.S. is more than 300 linear feet of stream channel or shoreline, a formal Section 401

WQC application must be submitted to the IDEM and a copy furnished to the Corps.

4. If the proposed discharge or if any work is to be performed in navigable waters in Indiana (regardless of the acreage or linear foot limitations), a Section 401 WQC application must be submitted to both the IDEM and the Corps.
5. If the proposed discharge is for shoreline alteration within the Counties in Indiana listed below (regardless of the acreage or linear foot limitations) the RGP notification form must be submitted to the IDEM and the Corps. Those Counties are: Adam, Allen, DeKalb, Elkhart, Jasper, Kosciusko, LaPorte, Lagrange, Lake, Marshall, Newton, Noble, Porter, St. Joseph, Starke, Steuben and Whitley Counties. Also, if the proposed discharge is for shoreline alteration on Morse or Geist Reservoirs the RGP Notification form must be submitted to the Corps and the IDEM regardless of the location, acreage and/or linear foot limitations.

Any request for authorization under the RGP must provide the following information:

1. Name, address, and phone number of the permittee;
2. Location of the proposed work to include Section, Township, Range, latitude and longitude or UTM;
3. A detailed description of the project, its purpose, the dimensions including the size of the structure or the fill area, fill quantity and type of fill being used. Please include a discussion of any temporary construction activities such as access roads or cofferdams if included as part of the scope of work;
4. Drawings on 8 1/2 x 11-inch paper must include a location map, plan and cross-section drawings illustrating all the work to be done. The application drawings must provide a scale and/or the exact dimensions given;
5. Legible and reproducible construction drawings on 8 1/2 x 11-inch paper showing all aspects of the proposed activity, including existing and proposed contours, utilities, the location of wetlands/waters of the U.S. to be impacted and not impacted (color-coded for identification purposes), the Ordinary High Water Mark (OHWM) of all waters and the observed outermost boundary of all wetlands. In addition, the drawings shall include a detailed plan and profile view of all structures to be installed in jurisdictional areas. The application drawings must provide a scale and/or exact dimensions given;
6. Submittal of photographs representing the existing site conditions;
7. A mitigation and monitoring plan, if applicable. For any project that impacts jurisdictional wetlands, a wetland delineation report is required and must conform to the Corps of Engineers' 1987 Wetland Delineation Manual, Technical Report Y-87-1, the Midwest Interim Regional Supplement to the 1987 Wetland Delineation Manual (as applicable), or the Draft Interim Northcentral and Northeastern Regional Supplement (as applicable and when finalized) and/or the Draft Interim Eastern Mountains and Piedmont Regional Supplement to

the Corps 1987 Wetland Delineation Manual (as applicable and when finalized).

Any request for authorization for shoreline protection projects on Lake Michigan shall include the following additional information:

1. Submittal of photographs representing the existing site conditions. The District may waive, on a case-by-case basis, the requirement to provide a complete wetland delineation;
2. A detailed narrative defining a clear purpose and need for the proposed work;
3. Baseline surveys of the existing shoreline;
4. Plan views and cross-sections of all proposed work drawn to detail and provided on 8 1/2 X 11 sheets;
5. Ordinary High Water Mark (OHWM) clearly marked on the plans;
6. The amount of fill (in cubic yards) to be placed below the Ordinary High Water Mark (OHWM 581.5') of the Lake (IGLD 1985).

IMPLEMENTATION PROCEDURES:

1. Applicants proposing to conduct work in navigable waters or discharge dredged and/or fill material into all waters of the U.S., including wetlands, must submit the application or notification form to the IDEM and the Corps as described in the Notification/Application Section above.
2. The Districts will review all applications for project compliance with the terms, maximum limitations, and general conditions identified in the attachment. The conditions have been adapted from the Corps' present standard permit conditions and the nationwide permit program. Any individual project that fails to comply with all conditions cannot be authorized under the RGP procedures. The Districts will also review the proposal to determine the coordination requirements with the USFWS in accordance with the Endangered Species Act and with the SHPO in accordance with the National Historic Preservation Act (see general condition numbers 13 and 14). Applicants will be notified if additional information or project modification were necessary to comply with these requirements.
3. The applicant must immediately provide a copy of the Section 401 WQC to the appropriate Corps District. Typically, the District will respond in writing to all requests within 45 days of the District's receipt of the request. However, any work conducted under the RGP must comply with all the terms of the Section 401 WQC as well as the RGP general conditions and any other special conditions that may be necessary to reduce the impacts to the minimal level, and to satisfy other environmental concerns and regulatory requirements.
4. The Districts may, at their discretion, determine that the RGP is not appropriate and require an individual permit review of the proposal.
5. The Districts, at their discretion, may insert additional conditions to the RGP for cases where it has concerns for aquatic resources under the Clean Water Act, or for any factor of the public interest.

EXCLUDED ACTIVITIES:

1. Activities that are denied any required local, State or Federal authorization.
2. Activities that the Districts determine to have the potential to cause unacceptable adverse impacts on aquatic resources or other public interest factors. The Districts may on a case-by-case basis require an Individual Department of the Army (DA) permit. The Districts will notify the applicant that the project does not qualify for the RGP and instruct the applicant on the procedures to seek authorization under a standard Individual DA permit. The Districts may also require an Individual DA permit for any After-the-Fact application and/or any unauthorized activity regardless of whether or not the loss of waters meets the upper threshold limitation of 1.0 acre of impacts to wetlands or 1,500 linear feet (not to exceed 1.0 acre) of stream impacts threshold limitation.

GENERAL CONDITIONS:

1. *Minimization/Avoidance:* Discharges of dredged or fill material into waters of the U.S. must be minimized or avoided to the maximum extent practicable at the project site (i.e. on-site). In determining the minimal impact threshold, the Districts will consider the direct and secondary impacts of the fill or work and any mitigation measures. A wetland delineation report is also required.
2. *Mitigation:* The permittee shall provide a mitigation/monitoring plan for any activity where the adverse impact (i.e., loss of waters) on special aquatic sites (including wetlands) exceeds 0.10 acre (4,356 sq. ft.) or is determined to be more than minimal impact. The permittee shall also provide a mitigation/monitoring plan for any channelization, encapsulation, or relocation of greater than 300 linear feet of stream. All mitigation plans will include a minimum 50-foot wide buffer between the edge of the mitigation project site and the waters and/or wetlands to be affected unless a shorter distance has been specifically approved under the RGP. If a shorter distance is approved, it is incumbent on the applicant to demonstrate that no practicable alternatives are available in meeting the required buffer widths. If mitigation is required, the permittee shall develop the mitigation site concurrently with site construction. The mitigation submittal must include a discussion of financial assurances for mitigation construction and long term management. Financial assurances may include, but are not limited to letters of credit or escrow.
3. *Soil Erosion and Sedimentation Controls:* The permittee shall install sedimentation and soil erosion control measures prior to any construction activity, and maintain them in effective operating condition during construction. This shall include the installation of silt fencing and/or other approved methods to control sedimentation and erosion. The permittee shall immediately stabilize areas disturbed by any construction activity, including channel banks, and revegetate with a combination of grasses, legumes and shrubs compatible to the affected area.
4. *Management of Water Flows:* In-stream work during periods of high flows should be avoided. The activity must be designed to maintain preconstruction flow conditions to the maximum extent practicable. The activity must not permanently restrict or impede the passage of high

flows (unless the primary purpose of the fill is to impound waters). The activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site.

5. *Waterfowl Breeding Areas*: The discharge of dredged and/or fill material in known waterfowl breeding areas must be avoided to the maximum extent practicable.

6. *Aquatic Life*: The permittee shall not perform in-stream construction activity during the fish-spawning season between April 1 through June 30 without prior approval from the Districts. The Districts will coordinate with the IDNR for their expertise on impacts to the fishery resource. The permittee will ensure that the activity authorized will not disrupt movement of those aquatic species indigenous to the waterbody, including those species which normally migrate through the area unless the activity's specific purpose is to impound water.

7. *Equipment*: All construction equipment shall be refueled and maintained on an upland site away from existing streams, drainage ways and wetland areas. Heavy equipment working in wetlands must be placed on mats, or other measures taken to minimize soil disturbance.

8. *Water Quality*: The permittee must provide a copy of the site specific Section 401 WQC before the Corps will authorize a project under the RGP.

9. *Case-by-case conditions*: The permittee must comply with any case specific special conditions added by the Corps or by the Section 401 WQC. The conditions imposed in the Section 401 WQC are also conditions of this RGP.

10. *Navigation*: The permittee shall assure that no activity authorized by the RGP may cause more than a minimal adverse effect on navigation.

11. *Maintenance*: Any structure or fill authorized by this RGP shall be properly maintained, including maintenance to ensure public safety.

12. *Wild and Scenic Rivers*: The permittee shall not perform any work within any Wild and Scenic Rivers or in any river officially designated as a "study river" for possible inclusion in the system, unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity authorized by the RGP will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal Land Management agency in the area (e.g. U.S. Forest Service, Bureau of Land Management or the Service).

13. *Endangered Species*: The permittee shall not perform any work under the RGP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. The permittee shall notify the District Engineer if any listed species or critical habitat might be affected or is in the vicinity of the project, and shall not begin work under the RGP until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. Authorization of an activity under the RGP does not

authorize the "take" of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the Service or the National Marine Fisheries Service, both lethal and nonlethal "takes" of protected species are in violation of the Endangered Species Act.

14. *Historic Properties*: The permittee shall not perform any activity under the RGP which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places until the District Engineer has complied with the provisions of 33 CFR Part 325, Appendix C. The permittee must notify the District Engineer if the activity authorized by the RGP may affect any historic properties listed, determined to be eligible or which the permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin construction until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the IDNR, Division of Historic Preservation and Archaeology.

If the permittee discovers any previously unknown historic or archaeological remains while accomplishing the activity authorized by the RGP, work must be immediately stopped and this office immediately notified of what you have found. The District will initiate the Federal, tribal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

15. *Water Supply Intakes*: The permittee shall not perform any work under the RGP where the discharge of dredged and/or fill material will occur in the proximity of a public water supply intake except where the activity is for the repair of the public water supply structure or adjacent bank stabilization.

16. *Suitable Materials*: No activity, including structures and work in waters of the U.S. or discharges of dredged or fill material may consist of unsuitable materials (e.g. trash, debris, car bodies, asphalt, etc.) and that materials used for construction or discharge must be free from toxic pollutants in toxic amounts.

17. *Impoundments*: The permittee shall ensure that if the activity approved by the RGP includes impoundment of water, measures will be taken to minimize adverse effects on the aquatic ecosystem caused by the accelerated passage of water and/or the restriction of flow.

18. *Removal of Temporary Fills*: The permittee shall ensure that all temporary fills authorized under the RGP be removed in their entirety and the affected areas returned to pre-construction conditions (i.e., elevation, contours, re-establishment of vegetation, etc.).

19. *Access*: Representatives from the Corps of Engineers and/or IDEM may inspect any authorized activity or mitigation site at any time deemed necessary to ensure compliance with the terms and conditions of the RGP, Section 401 WQC, and applicable laws.

20. *Construction Period*: All work authorized by this RGP must be completed by the expiration date of this RGP or 1 year after the date of the Corps authorization letter, whichever occurs later. If you find

you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 3 months prior to the expiration date.

21. *Reporting:* The permittee, after completion of work under the RGP, shall submit a signed certification letter regarding the completed work and required mitigation, if applicable. The certification letter will include a statement that the work was done in accordance with the RGP authorization including compliance with all general and special conditions and completion of mitigation work.

EFFECTIVE PERIOD: This Regional General Permit will be in effect for a 5-year period. At the end of the fifth year, it will be reevaluated and a decision made whether or not the permit should be renewed. The Districts may, at any time during the 5-year period, alter, modify, or revoke this permit, should it be determined that such action will be in the public interest. During the effective period, each proposal will be evaluated to determine whether any of the work to be authorized by the RGP will cause any major controversy or result in any detrimental impact to the public interest. The Districts' decision to seek renewal of the RGP will be based on this evaluation.

Information pertaining to this RGP, including the Decision Document, is available for public examination during normal business hours upon prior request. Any questions pertaining to this RGP should be addressed to Ms. Norma C. Condra, CELRL-OP-FN at the address noted above and should refer to Regional General Permit No.001. In the Detroit District, contact Kerrie Kuhne at 313-226-5381 or kerrie.e.kuhne@usace.army.mil.

CONTACT INFORMATION:

Indiana Department of Environmental Management
Section 401 WQC Program
100 North Senate Avenue
MC 65-42 WQS IGCN 1255
Indianapolis, Indiana 46204

U.S. Army Corps of Engineers
Louisville District
ATTN: CELRL-OP-FN
P.O. Box 59
Floor
Louisville, Kentucky 40201-0059

U.S. Army Corps of Engineers
Chicago District
Regulatory Branch
111 North Canal Street, 6th
Chicago, Illinois 60606-7206

U.S. Army Corps of Engineers
Detroit District
477 Michigan Avenue
Detroit, Michigan 48226



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Governor

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December 11, 2009

Mr. James Townsend
U.S. Army Corps of Engineers
Louisville District
P.O. Box 59
Louisville, Kentucky 40201-0059

Dear Mr. Townsend:

Re: Section 401 Water Quality Certification
Project: 2009 Renewal of Regional General
Permit No. 1 for Indiana

Office of Water Quality staff has reviewed your Joint Public Notice/application for Section 401 Water Quality Certification (WQC) dated August 14, 2009. You propose to reissue the Regional General Permit for the State of Indiana. The Regional General Permit is intended to authorize categories of activities that are similar in nature and cause minimal individual and cumulative impacts to the aquatic environment.

The Louisville, Detroit, and Chicago Districts of the U.S. Army Corps of Engineers developed the existing Indiana Regional General Permit No. 1 (RGP #1) to replace several NWP's. As a consequence of this action, the following NWP's have been, and will continue to be, suspended and will not be in effect for the State of Indiana. You propose to continue the suspension of the following:

NWP 7 *Outfall Structures and Associated Intake Structures*
NWP 11 *Temporary Recreational Structures*
NWP 13 *Bank Stabilization*
NWP 14 *Linear Transportation Projects*
NWP 15 *U.S. Coast Guard Approved Bridges*
NWP 18 *Minor Discharges*
NWP 19 *Minor Dredging*
NWP 25 *Structural Discharges*
NWP 29 *Residential Developments*
NWP 36 *Boat Ramps*
NWP 39 *Commercial and Institutional Developments*
NWP 40 *Agricultural Activities*
NWP 41 *Reshaping Existing Drainage Ditches*
NWP 42 *Recreational Facilities*
NWP 43 *Stormwater Management Facilities*
NWP 44 *Mining Activities*

Since the aforementioned NWP's are suspended in Indiana, no Section 401 Water Quality Certification decision is required. We are reauthorizing our Water Quality Certification for RGP #1 at this time in order to maintain consistency.

It is the judgment of this office that RGP #1 will comply with the applicable provisions of state law (including 327 IAC 2) and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if the recipient of the certification complies with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification for RGP #1. Any changes in the language or scope of RGP #1 not detailed in the aforementioned Joint Public Notice/application, or as modified by the conditions below, are not authorized by this certification.

CONDITIONS

All activities that do not meet these conditions require an individual Water Quality Certification from the IDEM and are not authorized under this WQC.

1. The permittee shall deposit any dredged material in a contained upland disposal area to prevent sediment runoff to any waterbody.
2. This WQC does not authorize the discharge of pollutants, principally sediment, associated with storm water. These discharges are regulated by 327 IAC 15-5 when land disturbances are one or more acres in size or are part of a larger common plan. This Water Quality Certification incorporates the conditions at 327 IAC 15-5-7(b)(1), 7(b)(5), and 7(b)(8) through 7(b)(20) as general conditions of this Water Quality Certification for all construction sites regardless of size. Compliance with the general permits at 327 IAC 15-5 or 327 IAC 15-6 (commonly referred to as a Rule 5 and Rule 6 respectively) is sufficient to demonstrate compliance with this condition of the WQC.
3. The permittee shall allow the commissioner or an authorized representative of the commissioner (including an authorized contractor), upon the presentation of credentials to conduct the following activities:
 - a. enter upon the permittee's property;
 - b. have access to and copy at reasonable times any records that must be kept under the conditions of these permits or this certification;
 - c. inspect, at reasonable times, any monitoring or operational equipment or method; collection, treatment, pollution management or discharge facility or device; practices required by this certification; and any mitigation site; and
 - d. sample or monitor any discharge of pollutants or any mitigation site.
4. This granting of WQC does not relieve the recipient of the certification from the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person.
5. This WQC does not:
 - a. authorize impacts or activities outside the scope of this certification;

- b. authorize any injury to permittees or private property or invasion of other private rights, or any infringement of federal, state or local laws or regulations;
 - c. convey any property rights of any sort, or any exclusive privileges;
 - d. preempt any duty to obtain federal, state or local permits or authorizations required by law for the execution of the project or related activities; or
 - e. authorize changes in the plan design detailed in the application.
6. This WQC does not authorize point source discharges of pollutants other than clean fill¹ and uncontaminated dredged material.
 7. This WQC does not authorize activities on or in any of the State's waters that have been designated as salmonid waters (cold water streams) or Outstanding State and/or National Resource Waters. (*see Attachment #1*).
 8. This WQC does not authorize activities on or in any critical wetland or critical special aquatic sites (*see Attachment #2*).
 9. This WQC does not authorize activities on or in any tributary of salmonid waters within a two river mile reach upstream from the confluence with the salmonid water between April 1 and June 30 or between August 1 and November 15. If work is proposed during these dates, a waiver for the activity must be granted by the Indiana Department of Natural Resources (IDNR) before the construction activity begins.
 10. This WQC does not authorize activities on or in any non-salmonid stream between April 1 and June 30. If work is proposed during these dates, a waiver for the activity must be granted by IDNR before the construction activity begins.
 11. The permittee must demonstrate, via letter from the Indiana Department of Natural Resources, Division of Nature Preserves, that no state endangered, threatened, or rare species are documented on a permanent or seasonal basis within a 1/2-mile radius of the proposed project site by the Indiana Natural Heritage Data Center, or must provide documentation from the Indiana Department of Natural Resources that states that the activities proposed will not constitute a violation of state laws protecting these species.
 12. This WQC does not authorize activities associated with the establishment of a mitigation bank.
 13. This WQC allows the use of multiple RGPs and NWP's on the same project. However, if any of the permits contain acreage or linear footage thresholds then the cumulative acreage and linear footage of effect on waters of the U.S. must be equal to or less than the most restrictive thresholds specified in each permit. For example, a road project may include several stream and wetland crossings. If the cumulative effect of these crossings is less than 0.10 acre and 300 linear feet and each crossing meets the other requirements of the permit and this WQC, then each crossing can qualify for a separate RGP #1. If, however, the cumulative effect of these crossings is greater than 0.10 acre or 300 linear feet then the

¹ Clean fill, for the purpose of this Water Quality Certification, means uncontaminated rocks, bricks, concrete without rebar, road demolition waste materials other than asphalt, or earthen fill.

activities are not authorized by this WQC and an individual WQC is required. The IDEM may certify several federal permits or licenses under one individual WQC.

14. In order to verify that a given project will qualify under the terms and conditions of this certification, IDEM may require additional information from the applicant. If the applicant fails to provide any information requested by IDEM, then the project is not authorized.
15. The permittee notifies the IDEM at least 30 days prior to the activity.
16. The activity will permanently affect one-tenth (0.10) of an acre or less of waters of the U.S.
17. The activity will not permanently change the sinuosity, flow path, velocity, cross sectional area under the Ordinary High Water Mark (OHWM), or the slope of a stream². Stream relocations are not authorized by this WQC.
18. The activity will permanently affect 300 linear feet or less of streams or lake shoreline.
19. In the case of bank stabilization activities or new lake and reservoir shoreline stabilization activities, the permittee demonstrates that the bank or shoreline in question is unstable.
20. Encapsulation activities meet the following limitations:
 - a. Must be for the purpose of constructing a crossing;
 - b. Must not exceed 150 feet;
 - c. The cross sectional area of the encapsulation is at least twenty percent (20%) larger than the area under the OHWM of the stream immediately up and downstream of the encapsulation;
 - d. The cross sectional area of the encapsulation is in the form of a single opening (double culverts are not authorized unless at least one of the culverts meets the cross sectional area requirement);
 - e. The installation of thermal plastic liners or other liners into existing structures must meet the minimum liner diameter requirements found in the Indiana Department of Transportation (INDOT) Specification 725.03;
 - f. The slope of the bed within the encapsulation matches the slope of the bed both immediately upstream and downstream.
 - g. Encapsulations either have no bottom (e.g., three sided culvert) or are embedded (sumped)³ into the stream channel based on the following structure sizes and substrate sizes:
 - Stream bed of sand
 - Structure <4 feet wide, 6 inch sump
 - Structure 4 feet wide to 12 feet wide, 12 inch sump
 - Structure 12 feet to 20 feet wide, 18 inch sump

² Stream, for the purpose of this Water Quality Certification, means waters of the U.S. that have a defined bed and bank and convey water ephemerally, intermittently or perennially. This term includes natural streams, relocated streams, channelized streams, artificial channels, encapsulated channels and ditches.

³ Sump, for the purpose of this Water Quality Certification, means the inside elevation of the bottom of the structure is placed at a specified depth below the grade of the stream.

Stream bed of other soil or unconsolidated till⁴

- Structure <4 feet wide, 3 inch sump
- Structure 4 feet wide to 12 feet wide, 6 inch sump
- Structure 12 feet to 20 feet wide, 12 inch sump

Stream bed of bedrock or consolidated till⁵

- Inside elevation of the structure bottom shall be a minimum of 3 inches below the surface of the bedrock or consolidated till

21. All stream pump-around activities must be discharged in a manner that does not cause erosion at the outlet. Cofferdam dewatering activities must use filter bags, upland sediment basins/traps, or a combination of other appropriate sediment control measures to minimize the discharge of sediment-laden water into waters of the U.S. All sediment control measures must be installed and maintained in good working order. For stream pump-around activities, the in-stream material used to construct the dam must be constructed of non sediment producing sources. Examples include sand bags and sheet pile walls.
22. The activity would not result in a permanent secondary effect to waters of the U.S. (e.g., dredging, excavation, damming, creation of in-channel ponds) that when combined with the primary effect exceeds the area and length thresholds specified above.
23. The department, for any project that qualifies under the terms and conditions of this certification, may choose to require an individual Water Quality Certification if it determines that the project would have more than minimal impacts to water quality, either viewed individually or collectively with other projects that may affect the same waterbody affected by the proposed project.

The Indiana Department of Environmental Management retains the right to review, modify, terminate, replace or amend this certification as needed to ensure that the federal permits or licenses certified do not result in violations of Indiana's Water Quality Standards or other applicable state laws. In the absence of another action by IDEM that would alter the termination date of this certification, this certification shall expire with the expiration of the federal permits it certifies.

This certification does not relieve the recipient of the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person. You may wish to contact the Indiana Department of Natural Resources at 317-232-4160 (toll free at 877-928-3755) concerning the possible requirement of natural freshwater lake or floodway permits. In addition, you may wish to contact IDEM's Storm Water Permits program at 317-233-1864 concerning the possible need for a 327 IAC 15-5 (Rule 5) permit if you plan to disturb greater than one (1) acre of land.

This certification does not:

- (1) authorize impacts or activities outside the scope of this certification;

⁴ Other soil and unconsolidated till includes substrates that are more cohesive and less mobile (e.g. clay, silt, gravel, and cobble substrates).

⁵ Consolidated till includes dense hard materials such as hardpan.

- (2) authorize any injury to persons or private property or invasion of other private rights, or any infringement of federal, state or local laws or regulations;
- (3) convey any property rights of any sort, or any exclusive privileges;
- (4) preempt any duty to obtain federal, state or local permits or authorizations required by law for the execution of the project or related activities; or
- (5) authorize changes in the plan design detailed in the application.

Failure to comply with the terms and conditions of this Section 401 Water Quality Certification may result in enforcement action against the recipient of the certification. If an enforcement action is pursued, the recipient of the certification could be assessed up to \$25,000 per day in civil penalties. The recipient of the certification may also be subject to criminal liability if it is determined that the Section 401 Water Quality Certification was violated willfully or negligently.

This certification is effective eighteen (18) days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18-day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the certification within the scope of the petition for stay is stayed for fifteen (15) days, unless or until an Environmental Law Judge further stays the certification in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

1. You must petition for review in writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
2. You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication
100 North Senate Avenue
IGCN Room N501
Indianapolis, IN 46204

3. You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the certification, decision, or other order for which you seek review by number, name of the applicant, location, or date of this notice will expedite review of the petition.

Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings, hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from OEA.

If you have procedural questions regarding filing a petition for review you may contact the Office of Environmental Adjudication at 317-232-8591.

If you have any questions about this certification, please contact Mr. Jason Randolph, Project Manager, at 317-233-0467, or you may contact the Office of Water Quality through the IDEM Environmental Helpline (1-800-451-6027).

Sincerely,



Marylou Poppa Renshaw, Chief
Watershed Planning Branch
Office of Water Quality

cc: Norma Condra, USACE-Louisville
Charlie Simon, USACE-Detroit
Mitch Isoe, USACE-Chicago
Leesa Beal, USACE-Chicago
Mike Litwin, USFWS
Matt Buffington, IDNR
Wendy Melgin, USEPA Region 5

Attachment 1 – Indiana Waters Designated for Special Protection

Designated Salmonid Waters:

- West Branch, Little Calumet River and its tributaries, downstream from the dam at 29th Avenue (Deep River) to Lake Michigan via Burns Waterway, Lake and Porter County.
- Galena River and its Tributaries, LaPorte County.
- Trail Creek and its tributaries, downstream to Lake Michigan, LaPorte County.
- East Branch, Little Calumet River and its tributaries, downstream to Lake Michigan, via Burns Waterway, Porter and LaPorte counties.
- Kintzele Ditch (Black Ditch) from Beverly Drive downstream to Lake Michigan, Porter County
- Salt Creek and its tributaries upstream of its confluence with the Little Calumet River, Porter County.
- St. Joseph River and its tributaries from Twin Branch dam downstream to the Indiana/Michigan state line, St. Joseph County,
- Waters designated by IDNR for put-and-take trout fishing.

Waterbodies which have been designated all or partially as Outstanding State Resource Waters:

- The Blue River in Washington, Crawford, and Harrison counties
- Cedar Creek in Allen and DeKalb counties
- The North Fork of Wildcat Creek in Carroll and Tippecanoe counties.
- The South Fork of Wildcat Creek in Tippecanoe County.
- The Indiana portion of Lake Michigan.
- All waters incorporated in the Indiana Dunes National Lakeshore.
- Big Pine Creek in Warren County.
- Mud Pine Creek in Warren County.
- Fall Creek in Warren County.
- Indian Creek in Montgomery County.
- Clifty Creek in Montgomery County.
- Bear Creek in Fountain County.
- Rattlesnake Creek in Fountain County.
- The small tributary to Bear Creek in Fountain County within the Portland Arch Nature Preserve which enters Bear Creek at the sharpest bend and has formed the small natural bridge called Portland Arch.
- Blue River from the confluence of the West Middle Forks of the Blue River in Washington County.
- The South Fork of the Blue River in Washington County.
- Lost River and all surface and underground tributaries upstream from the Orangeville Rise (T2N, R1W, Section 6) and the Rise of Lost River (t2N, R1W, Section 7) and the mainstream of the Lost River from Orangeville Rise downstream to its confluence with the East Fork of the White River.

Attachment 2 – Critical Wetlands and Critical Special Aquatic Sites

In the interest of maintaining consistency with the State Regulated Wetland program established at 327 IAC 17, the Indiana Department of Environmental Management (IDEM) defines Critical Wetlands and Critical Special Aquatic Sites to be synonymous with Rare and Ecologically Important Wetland Types under 327 IAC 17-1-3(3)(B):

- **Acid bog:** Acid bog is an acidic wetland of kettle holes in glacial terrain. Bogs can be graminoid (*Carex* spp. and *Sphagnum* spp.) or low shrub (*Chamaedaphne calyculata* and *Betula pumila*). The graminoid bog can be a floating, quaking mat. The soils in acid bogs are saturated and acidic peat. Bogs have non-flowing or very slow flowing water. The water level fluctuates seasonally. When a sphagnum mat floats, it rises and falls with the water table. Acid bogs can be found in northern Indiana.
- **Acid seep:** Acid seep is a bog-like wetland typically found in unglaciated hill regions. This community is a small groundwater-fed wetland located primarily in upland terrain. A thin layer of muck may lie over a mineral substrate. The soil reaction is acid. This seep community is characterized by flowing water during at least part of the year. Acid seeps are located primarily in southern Indiana.
- **Circumneutral bog:** Circumneutral bog is a bog-like wetland that receives groundwater. Circumneutral bogs can be a mosaic of tall shrub bog, graminoid bog, and other communities. The graminoid bog often occurs on a quaking or floating mat. Although a few bogs occur in unglaciated regions, most are found in glacial ice-block depressions. The soils in circumneutral bogs are usually peat, or other low nutrient organic substrates, which are saturated and circumneutral to slightly acid. Circumneutral bogs have non-flowing or very slow flowing water. The water level fluctuates seasonally. Circumneutral bogs are usually found in northern Indiana.
- **Circumneutral seep:** The circumneutral seep (or seep-spring) is a groundwater-fed wetland on organic soil. It is primarily herbaceous. Species typically include marsh marigold (*Caltha palustris*) and skunk cabbage (*Symplocarpus foetidus*) with a scattered tree canopy. Circumneutral seep is typically situated on or near the base of a slope. The soil is typically circumneutral muck. This seep community is characterized by slowly flowing water during at least part of the year. Circumneutral seeps can be found scattered throughout Indiana.
- **Cypress swamp:** Bald cypress swamps are seasonally to permanently inundated wetlands found in depressions and sloughs of large bottomlands associated with the Wabash/Ohio River system. Poorly to very poorly drain soils characterize this environment. Bald cypress (*Taxodium distichum*) is present, and green ash (*Fraxinus pennsylvanica*), silver maple (*Acer saccharinum*), and overcup oak (*Quercus lyrata*) are also usually present. This community is restricted to extreme southwest Indiana.
- **Dune and swale:** Dune and swale is an ecological system consisting of a mixture of upland (black oak sand savanna, dry to mesic sand prairie) and wetland (pond, panne, sedge meadow, marsh, wet prairie) natural communities. These communities occur in long, narrow, linear complexes, with the dry communities occupying sand ridges, and the wet communities occurring in the intervening swales. Black oak (*Quercus velutina*), paper birch (*Betula papyrifera*), jack pine (*Pinus banksiana*), and prairie vegetation typically occur on the ridges, and sedges, reeds, and marsh/aquatic vegetation line are found in the swales. Water levels are directly influenced by ground water, with the interdunal swales controlled largely by lateral flow through porous beach ridges. Dune and swale is restricted to extreme northwest Indiana, near Lake Michigan.

- **Fen:** Fen is a calcareous, groundwater-fed wetland. Fens are often a mosaic of grassy areas, sedgy areas, graminoid-shrubby cinquefoil, and tall shrub areas. The extent of the tall shrub component of fens may be determined by fire frequency and/or soil moisture. Drying of the soil increases the growth of shrubs. Fens typically occur in the vicinity of glacial moraines. Fens typically have a muck or peat substrate. The water level fluctuates seasonally and is fed by groundwater. Fens can be found in central and northern Indiana.
- **Forested fen:** Forested fen is a tree-dominated wetland on organic soil which receives groundwater. Forested fens are often a mosaic of treed areas, tall shrub areas, and herbaceous areas. A tall shrub layer is often well developed in forested fens. Indicative species typically include tamarack (*Larix laricina*), black ash (*Fraxinus nigra*), yellow birch (*Betula alleghaniensis*), poison sumac (*Toxicodendron vernix*), and red maple (*Acer rubrum*). Forested fens occur in wet lowlands, where moraines meet outwash features or depressions. Forested fens have saturated, poorly to very poorly drained soils that are often muck, but some seasonal flooding can occur in forested fens that are especially level. This community is a late successional stage of fen or circumneutral bog. Forested fens occur in northern Indiana.
- **Forested swamp:** Forested swamp is a seasonally inundated to intermittently exposed wetland of large river bottoms. Forested swamps do not receive direct flow from river flooding except under exceptional circumstances. Forested swamps occur in depressions, sloughs and large bottomlands, typically dominated by tree species such as swamp cottonwood (*Populus heterophylla*), green ash (*Fraxinus pennsylvanica*), and swamp white oak (*Quercus bicolor*). In northern Indiana important tree species include black ash (*Fraxinus nigra*), yellow birch (*Betula alleghaniensis*), and red maple (*Acer rubrum*). Poorly to very poorly drained and aerated soils characterize the swamp environment. Soils usually are mineral not muck or peat. This community type is found throughout Indiana.
- **Marl beach:** Marl beach is a fen-like community located on the marly muck shorelines of lakes. Marl precipitate is evident. A thin layer of water is present in spring, but dries down in summer. Draw-down of a lake creates additional area for this community to develop on. Marl beaches can be found in extreme northern Indiana, primarily in the northeast.
- **Muck flat:** Muck flat is a shoreline and lake community possessing a unique flora of sedges and annual plants, many of which are also found on the Atlantic and Gulf Coastal Plains. This community is found at the margins of lakes or covering shallow basins. This community has a peat substrate. The muck flats can float on the water surface, but during high water periods are usually inundated. The water level of a basin fluctuates during a season or from year to year in response to the amount of precipitation. This exposes bare substrate needed for germination by species of the community. Muck flats are found in northern Indiana.
- **Panne:** Panne is a groundwater fed herbaceous wetland occupying interdunal swales near Lake Michigan. Pannes are located on the lee side of the first or second line of dunes from the lakeshore. The soil is wet, calcareous sand. Pannes are located in counties bordering Lake Michigan.
- **Sand flat:** Sand flat is a shoreline and lake community possessing a unique flora of sedges and annual plants, many of which are also found on the Atlantic and Gulf Coastal Plains. This community is found at the margins of lakes or covering shallow basins. This community has a sand substrate. During high water periods sand flats at the margins of lakes or ponds are inundated. The water level of a basin fluctuates during a season or from year to year in response to the amount of precipitation. This exposes bare substrate needed for germination by species of the community. Sand flats occur in northern Indiana, and in the Plainville Sand Section of southwest Indiana.
- **Sedge meadow:** Sedge meadow is an herbaceous wetland typically dominated by graminoid species such as flat sedge (*Cyperus* spp.), spike rush (*Eleocharis* spp.), rushes (*Juncus* spp.) and

sedges (*Carex* spp.). Sedge meadow is an herbaceous wetland of stream margins and river floodplains, and lake margins or upland depressions. Streamside sedge meadows are frequently flooded in the spring and early summer. Sedge meadows of lake margins and depressions often contain standing water during wet months and after heavy rains; during dry periods, the water level is at or just below the substrate. Sedge meadow usually occupies the ground between a marsh and the uplands, or a shrub swamp or wet forest. Periodic high water can kill trees and shrubs invading sedge meadows. Sedge meadows can be found in the northern half of the state.

- **Shrub swamp:** Shrub swamp is a shrub-dominated wetland that is seasonally inundated to intermittently exposed. This community occurs in depressions and the substrate is either mineral soils or muck, as opposed to peat which is characteristic of bogs. Shrub swamp is characterized by non-flowing or very slowly flowing water with levels that fluctuate seasonally. Shrub swamps are persistent, though considered successional. Two opportunistic native shrubs, sandbar willow (*Salix exigua*) and gray dogwood (*Cornus racemosa*), by themselves, are not indicative of shrub swamps. This community type is found throughout Indiana.
- **Sinkhole pond:** Sinkhole ponds are water-containing depressions in karst topography. Sinkhole ponds are found in the Mitchell Karst Plain in south-central Indiana.
- **Sinkhole swamp:** Sinkhole swamps are depressions in karst topography dominated by tree or shrub species. Sinkhole swamps are found in the Mitchell Karst Plain in south-central Indiana.
- **Wet floodplain forest:** Wet floodplain forest is a broadleaf deciduous forest of river floodplains. Wet floodplain forests occur in depressions and flats on narrow to wide floodplains and also on recently exposed substrates that are frequently flooded. Wet floodplain forests are frequently flooded and may have standing water seasonally to permanently present. Wet floodplain forests occur statewide.
- **Wet prairie:** Wet prairie is an herbaceous wetland typically dominated by graminoid species such as prairie cordgrass (*Spartina pectinata*), bluejoint (*Calamagrostis canadensis*), and sedges (*Carex* spp.). Vegetation height is often 2-3 m. The species diversity of wet prairies is lower than that of mesic prairies. Wet prairies occur in deep swales and the substrate ranges from very deep black mineral soils (which are high in organic matter) to muck. Ponding in spring lasts for several weeks prior to drainage. Wet prairies commonly occur in the Grand Prairie Natural Region, the Tipton Till Plain and the Bluffton Till Plain, with a few examples found in the Northern Lakes Natural Region.
- **Wet sand prairie:** Wet sand prairie is an herbaceous wetland typically dominated by graminoid species such as prairie cordgrass (*Spartina pectinata*), bluejoint (*Calamagrostis canadensis*), and sedges (*Carex* spp.). Vegetation height is often 2-3 m. The species diversity of wet prairies is lower than that of mesic prairies. Wet lowland prairies occur in deep swales and the substrate is sand, sometimes mixed with muck. Flooding is a regular springtime occurrence in wet sand prairie and may last several weeks. This community occurs in a mosaic with marsh and other wetlands, and with upland prairies and sand savannas. Fire was frequent occurrence, but more common in the fall when waters had receded. This community occurs in northwest Indiana and in the Plainsville Sands area.