

## Kentucky State Wetland Program Summary



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### **Section A. Quick View**

#### **Description of State's Wetlands**

Most Kentucky wetlands are palustrine and include areas lying shoreward of rivers and lakes, such as bald cypress swamps, bottom-land hardwood forests, emergent wetlands, and small ponds.

#### **State Definition of Wetlands**

"Wetlands" means land that as a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and tha under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for lide in saturated soil conditions (401 KAR 10:001).

#### **Historic Wetland Loss/Gain**

Original Wetland Acreage	Remaining Wetland Acreage	Acreage Lost	% Lost
1,566,000	300,000	1,266,000	81%

Source: Fish and Wildlife Service - Dahl, 1997

#### **Primary State Wetlands Webpage**

<http://water.ky.gov/permitting/Pages/KYWaterQualityCertProg.aspx>

The Kentucky Department of Natural Resources reviews applications for Clean Water Act Section §401 Water Quality Certification (401 WQC) associated with activities related to surface coal mining operations. Examples include, but are not limited to surface coal mining operations, improvements to local roads for the purposes of hauling coal, restoration of abandoned coal mines and off-site stream or wetland restoration activities intended solely to offset impacts resulting from coal mine activities. Visit the KY DNR website for further information on this process:

<http://www.dnr.ky.gov/Pages/401WQC.aspx>

**State Wetland Program Plan**

The state does not have a formal, EPA-approved wetland program plan, however Kentucky will be submitting a wetland program plan to the U.S. EPA in early January 2015.

**Not Net Loss/Net Gain Goal**

There is an informal goal, but nothing in statute or administrative guidance explicitly stating a no net loss goal.

**State Resources for Wetland Work**

State Name	Core element #1: Regulation	Core Element #2: Monitoring and Assessment	Core Element #3: Wetland Water Quality Standards	Core Element #4: Voluntary Wetland Restoration
<b>Agency</b>	DEP Division of Water	DEP Division of Water	None	None
<b>Sources</b>	Section §106 grants	Unknown		
<b>Amount</b>	Unknown	Unknown		
<b>Staffing</b>	3-4 FTE	1 FTE		
<b>Agency</b>	DNR	State Wetland Preserves		
<b>Sources</b>	Unknown	Unknown		
<b>Amount</b>	Unknown	Unknown		
<b>Staffing</b>	1 FTE	Unknown		

**State Permitting Fees**

State Permitting Fee	State Name
Yes/No	YES
Amount (range)	\$1,000-\$5,000
Agency	Division of Water Quality

**Innovative Features**

None. Mostly default to the Corps work.

**Models and Templates**

None. Mostly default to the Corps work.

## **Section B. Regulation**

### **How are Wetlands Regulated in the State?**

Kentucky's regulation of wetlands is limited to those areas that are deemed to be jurisdictional wetlands by the Corps. Kentucky Division of Water's (KDOW's) Water Quality Certification Section (WQCS) administers the 401 permitting process for the state. Currently, if proposed activities will impact less than ½ acre of wetland marsh, then permittees may meet general certification conditions for Nationwide Permits. Anything over ½ acre requires an individual permit and mitigation.

The WQCS imposes a number of general conditions to §401 certification. These conditions include: measures to prevent spills; requirements to retain the original streamside elevation; requirements for re-vegetation of the project area; a restriction for in-stream work other than during low flow conditions; a restriction for work with heavy equipment within the stream channel; requirements for the use of fill or rip-rap that "will not adversely affect the biological, chemical or physical properties of the receiving waters and/or cause violations of water quality standards;" notification requirements for any affect to water supply intakes located downstream; removal restrictions for existing riparian vegetation; and notification requirements for evidence of stream pollution or jurisdictional wetland impairment and/or violations of WQS .

In 1994, the Kentucky General Assembly passed the Kentucky Agriculture Water Quality Act in order to protect surface and groundwater resources from agricultural pollution. The law requires all agricultural operations with ten or more contiguous acres to develop and implement a site-specific Agricultural Water Quality Plan using a model state plan (Kentucky Agricultural Water Quality Plan) for guidance. The state plan includes guidance on how agricultural projects can be certified under CWA §401 and several nationwide permits and provides information on some of the Corps' permit and notification requirements under the CWA §404 program.

The state provides wetland guidance in the following document:

[http://water.ky.gov/permitting/Lists/Working%20in%20Streams%20and%20Wetlands/Attachments/11/Wetland\\_guide.pdf](http://water.ky.gov/permitting/Lists/Working%20in%20Streams%20and%20Wetlands/Attachments/11/Wetland_guide.pdf)

### **Wetland Delineation**

<b>Delineation Guidance</b>	<b>Yes</b>	<b>No</b>	<b>Detail</b>
Use State's Own Method		X	
Use Corps' 87 Manual and Regional Supplement(s)	X		
Other (Please describe)		X	

## **Evaluation Methodology**

The WQCS relies almost exclusively on a qualitative assessment of certification applications, which is based on narrative WQS. Low gradient bottomland riverine wetlands are evaluated using an approved Hydrogeomorphic (HGM) Guidebook. A wetland rapid assessment method (KY-WRAM) is currently being evaluated for use in regulation and mitigation. The KY-RAM is available at:

<http://water.ky.gov/waterquality/Pages/KY-WRAM.aspx>

## **Exempted Activities**

Kentucky's exemptions are comparable to the federal exemptions. The state defaults to the Corps for decisions regarding agriculture, hazards, etc. Kentucky Pollutant Discharge Elimination System (KPDES) permit is not required for discharges of dredged and fill material into waters that are authorized under the CWA §404; the discharge of sewage from vessels, excluding trash or other materials thrown overboard; discharges complying with the instructions of an on-scene coordinator pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), the Pollution by Oil and Hazardous Substances (33 CFR Part 153), discharges that comply with Kentucky's substance contingency plan, discharges authorized by a state on-scene coordinator that responds to the release of hazardous substances, pollutants, contaminants, or petroleum; introduction of pollutants from nonpoint source agricultural or silvicultural activities; return flows from irrigated agriculture; discharges into privately owned treatment works; authorizations by permit or rule under the federal Safe Drinking Water Act.

## **Special Provisions for Agriculture and Forestry**

Same as federal.

## **Penalties and Enforcement**

The Kentucky Department for Environmental Protection (KDEP), Division of Enforcement has a general enforcement program for water quality and does not operate a separate wetlands program. Most of Kentucky's §401/404 violations are referred to the Corps, EPA and KDEP Division of Enforcement. Violations of Kentucky's water quality standards can carry a statutory civil penalty of \$25,000 per day per violation.

## **Permit Tracking**

KDEP manages the state's permit and mitigation tracking system. The system, a large database called TEMPO (Tools for Environmental Management Protection Organizations), tracks all aspects of air, water, and waste permits, including enforcement and mitigation provisions. Mitigation tracking is fairly limited but includes: acres of wetland lost, length of stream lost, acres of wetland mitigated, length of stream mitigated, and feet of stream stabilization.

**State General Permit (statewide vs. regional coverage)**

Permit Coverage	Yes	No	Detail (Type of Permit)
Regional General Permit	X		KDOW has also established conditions applicable to the Corps' regional permit #32 (Commercial Sand and Gravel Dredging Ohio River Mile 438.0 to Mississippi River). The state certifies these permits.
Statewide General Permit		X	

**Assumption of 404 Powers**

Assumption Status	Yes	No	Detail
Assumed		X	
Working Toward Assumption		X	
Explored Assumption	X		Assumption was explored in 1988 and rejected primarily due to lack of funding and staffing. Assumption was explored again in 2006 and put on hold pending the outcomes of Carabell-Rapanos. Efforts have not resumed.

**Joint Permitting**

None.

**Special Area Management Plans and Advanced Identification Plans**

None.

**Mitigation Policy**

The Kentucky Department for Environmental Protection - Division of Water (KDOW) has collaborated with federal agencies to develop comprehensive mitigation guidelines for wetlands. Mitigation is required at a 2:1 ratio, except for the Pond Creek Watershed in Jefferson County, Kentucky in which a ratio of 3:1 is required. Monitoring is required for a minimum of five years.

The Kentucky Department of Fish and Wildlife resources (KDFWR) (KRS 150.255) and the Northern Kentucky Stream and Wetland Restoration Program under contract with the US Army Corps of Engineers provide in lieu fee compensatory mitigation service to public and private entities. As required by federal regulations, these mitigation projects replace aquatic ecosystem functions and services lost due to development ("no net loss"), such as stream, wetland, and riparian habitat; water quality protection; pollutant removal; floodwater and energy dissipation; and natural area aesthetics and recreation opportunities.

The state relies on the U.S. Army Corps of Engineers to provide information relating to the mitigation guidance, monitoring, mitigation banking and in lieu fee programs (<http://www.lrl.usace.army.mil/Missions/Regulatory/Mitigation.aspx>)

### **Mitigation Database**

KDEP informally manages Kentucky's permit and informal mitigation tracking system (see permit tracking section above), but is not responsible for the mitigation program. The Corps manages mitigation and uses the RIBITS database (<http://ribits.usace.army.mil/>). RIBITS provides access to information on the types and numbers of mitigation banks and in lieu fee programs sites, associated documents, mitigation credit availability, and service areas,

## **Section C. Monitoring and Assessment**

### **Agency Responsible for Wetland Monitoring and Assessment**

Kentucky began a state monitoring program specifically for wetlands in 2011. This program is located in the Water Quality Branch of the KDOW. Efforts in 2015 are planned to include intensive wetland program development, planning for the 2016 National Wetland Condition Assessment (NWCA) intensification, and assisting WQCS with wetland assessment and mitigation guidance. The state refers to their progress in monitoring and assessment as a series of "baby steps," moving forward but limited by staffing and resource restrictions. The state conducted probabilistic sampling in the 2011 National Wetland Condition Assessment (NWCA).

### **Mapping/Inventory**

National Wetland Inventory maps have been completed for the state; however, most of these wetland maps and geospatial wetland data is from the 1970s and 1980s and have not been updated since. The types and functions of these land areas may have changed. There has been a lot of draining and conversion. The state is in the process of evaluating different techniques and methodologies for mapping and assessment wetlands with several partners.

### **State Wetland Mapping Public Portal**

The National Wetland Inventory layer for Kentucky can be downloaded from:  
<http://kygisserver.ky.gov/geoportal/catalog/main/home.page>

### **Wetland Classification and Assessment**

The state has worked with the Corps to develop a regional hydrogeomorphic (HGM) guidebook for assessing the functions of low gradient, riverine wetlands in Western Kentucky in the context of the §404 regulatory program. However, the state does not actively use the HGM tool. While staff say it is a great tool, they have not had training on the method and it has been deemed too resource-intensive to be practical. The state would like to see the HGM tool used for large wetland mitigation banks.

In addition, Kentucky has developed the KY-WRAM, a rapid assessment tool that can be used to assess wetland quality for regulatory purposes. Kentucky has validated the method on over 300 wetlands through the state to determine if it can be used year-round in the state. KY-WRAM is still developing as a tool and is not, at this time, required or used in a formal way. Currently, efforts are underway to construct a categorization matrix and implement the method in the §401 and §404 programs.

**Overall Wetland Gain and Loss Tracking System**

None. The state’s TEMPO database has some information, but the data is incomplete and the focus of the database is only on regulatory gains and losses.

**Statewide Monitoring Plan**

The statewide monitoring plan is included in the recently-submitted Kentucky wetland program plan. The plan will be posted to the KDOW website once it is approved by EPA.

**Wetland Monitoring and Assessment Characteristics**

Level	None	Level 1	Level 2	Level 3
<i>Kentucky</i>		X	X	X

Type	None	IBI	Condition	Functional
<i>Kentucky</i>		X	X (KY-WRAM includes condition and function)	(See condition)

Frequency	None	Project Specific	Ongoing
<i>Kentucky</i>		X	X

**Participation in National Wetland Condition Assessment**

NWCA Study Type	Yes	No
National Study	X	
State Intensification Study		X

**Detail:** KDOW staff conducted the sampling for the 2011 NWCA study. Kentucky is considering conducting a state intensification for the 2016 NWCA.

**Section D. Water Quality Standards**

**Wetland and Water Quality Standards**

Type	None	Use Existing WQ Standards	In Process	Adopted	Future Direction
<b>Wetland-specific Designated Uses</b>	X				KY would like to develop these in the future; not likely in the near future
<b>Narrative criteria in the standards to protect designated wetland uses</b>	X				“
<b>Numeric criteria in the standards based on wetland type and location to protect the designated uses</b>	X				“
<b>Anti-degradation policy includes wetlands</b>	X				“

**Description:** Kentucky has not adopted wetland-specific water quality standards (WQS), anti-degradation policies, and designated uses. However, general WQS applicable to all surface waters may also be applicable to wetlands. Wetlands and all surface waters not specifically assigned designated uses are designated for the use of warm water aquatic habitat, recreation use, and water supply/quality. Kentucky’s water quality standards are based on chemical, biological and narrative criteria. Wetlands are designated to be warm water aquatic habitat.



**Section E. Voluntary Wetland Restoration**

**Types of Wetland Restoration Work Funded by the State:**

Type of Work	YES	NO	Description
Fund Wetland Restoration (may include easement agreements)		X	(Only through mitigation banks and ILF programs)
Private Land Restoration		X	“
Public Land Restoration		X	“
Technical Assistance	X		Both the Water Quality Certification Section and the Kentucky Department for Fish and Wildlife (KDFWR) provide landowner assistance.
Tax Incentives		X	
Other	X		The Kentucky Nature Preserves Commission buys and owns high quality wetlands.

**Description:** Although there is no formal state restoration program, KDFWR collaborates with NRCS and other state, federal, and non-governmental partners on wetlands restoration programs. KDFWR works with NRCS to provide technical and financial support to help landowners with their wetland restoration efforts as part of the WRP.

**Voluntary Wetland Restoration Program Components**

Wetland Restoration Efforts	Nothing in the Works	Planning	In Progress	Complete
Program has a set of restoration goals	N/A			
Coordinate with relevant agencies that outline restoration/protection goals and strategies and timeframes	N/A	X		
Developed multi-agency body to coordinate restoration/ protection efforts	N/A			
Set restoration goals based on agency objectives and available information	N/A	X		

**Detail:** The KY Wetland Program Plan is working internally with 319 funds to start including wetlands as part of assessments.

## Goals for Restoration Projects

Goal	Yes	No	Description
No Net Loss	N/A		
Reverse Loss/Net Gain	N/A		
Nonpoint Source Pollution (NPS)	N/A		
Total Maximum Daily Load (TMDLs)	N/A		
Habitat	N/A		
Coastal Protection	N/A		
Floodwater Protection	N/A		
Groundwater	N/A		
Other (please describe)	N/A		

## Landowner Guides and Handbooks to Assist with Voluntary Wetland Restoration Efforts

None. However, both the Fish and Wildlife Department and Northern Kentucky University work with property owners when requested; this assistance is not specific to wetlands.

## Section F. Innovative and/or Highly Effective Education and Outreach

Kentucky has no formal outreach or education programs specific to wetlands.

## Section G. Climate Change and Wetlands

The state wetland program is not conducting any climate change-related work at this time. Several of the nation's most vocal political climate deniers are from Kentucky. Streams and lakes programs are doing some climate change work (including ambient long-term monitoring and studying harmful algal blooms). The wetland program is not part of the program doing this work. Some climate-related concerns are addressed through other non-climate change focused efforts.

## Section H. Integration

Entity/Program Area	Yes/No	Description of the Connection
NPDES/Stormwater	NO	Not unless specifically impacting existing wetlands with fill; don't work with the stormwater staff yet
303(d)	NO	
305(b) reporting on wetlands	NO	
Total Maximum Daily Load (TMDLs)	NO	
Climate Change/ Resiliency	NO	
Land Use /Watershed planning	YES	DEP has created a watershed management section that is beginning to deal with resource issues on a watershed scale; however this work is still minor and has not driven any projects on its own.
Flood/Hazard Mitigation	NO	Even though these staff are in the same division

		as the state wetland program
Coastal Work (Mississippi River)	N/A	There are some nutrient reduction efforts underway for the Mississippi River, but the wetland program is not included
Wildlife Action Plan	Unknown	
Statewide Comprehensive Outdoor Recreation Plan (SCORP)	NO	
Other – Transportation	YES	Mostly through joint participation in the Interagency Review Team (IRT) for mitigation
Other – Ducks Unlimited	NO	Note this lack of integration, because KY is part of a major waterfowl flyway and the wetland program does not have a partnership with Ducks Unlimited

### State Wetland Program Continuum

Continuum Stage		Core Element 1: Regulation	Core Element 2: Monitoring & Assessment	Core Element 3: Wetland Water Quality Standards	Core Element 4: Voluntary Restoration
Mature Stage	High	401 Certification Only*			
Initial Implementation Stage	↑				
Development Stage			X		
Early Stage			Low		X

\* KY has no state regulations for §401; staffing and budget issues prevent maturing/programmatic development.

### Section I. Contact Information

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## Section J. Useful State Websites

### State Government Programs

1. Kentucky Department of Fish & Wildlife Resources  
Wetland and Stream Mitigation Program  
<http://fw.ky.gov/streamandwetlandrestoration.asp>
2. Department for Environmental Protection
  - a) Division of Water
    - i. Water Quality Certification Program  
<http://water.ky.gov/permitting/Pages/KYWaterQualityCertProg.aspx>
    - ii. Stream and Wetland Conservation Plan  
<http://water.ky.gov/permitting/Pages/WQCProgramDevelopment.aspx>
    - iii. Kentucky's National Wetland Condition Assessment  
<http://water.ky.gov/permitting/Pages/WQCProgramDevelopment.aspx>
    - iv. Kentucky Wetland Rapid Assessment Method  
<http://water.ky.gov/permitting/Pages/WQCProgramDevelopment.aspx>
    - v. Nonpoint Source (NPS) Pollution Control Program  
<http://water.ky.gov/nsp/Pages/default.aspx>
3. Kentucky Heritage Land Conservation Fund  
<http://heritageland.ky.gov/Pages/default.aspx>
4. Department of Natural Resources
  - a) Division of Conservation  
The Division of Conservation is charged with providing assistance to Kentucky's 121 conservation districts to develop, administer and implement sound conservation programs across the state.  
<http://conservation.ky.gov/Pages/default.aspx>
5. Kentucky State Nature Preserves Commission (KSNPC)  
<http://naturepreserves.ky.gov/Pages/default.aspx>

### Federal Government Programs

1. USDA Natural Resources Conservation Service  
Wetlands Reserve Program  
[http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ky/programs/easements/wetlands/?cid=nrcs142p2\\_009773](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ky/programs/easements/wetlands/?cid=nrcs142p2_009773)

### Other Organization Wetland Programs

1. Kentucky PRIDE (Personal Responsibility in a Desirable Environment)

<http://kypride.org/about/>

2. Ducks Unlimited

<http://southern.ducks.org/KentuckyRiverWMA.php>