



ENVIRONMENTAL
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State Wetland Protection

Status, Trends, & Model Approaches

*A 50-state study by the
Environmental Law Institute*

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U.S. Environmental Protection Agency*

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Appendix: State Profiles

Kentucky

I. Overview

Most of Kentucky's 300,000 acres of wetlands are classified as palustrine forested wetland and are dominated by hydrophytic trees, shrubs, and herbaceous plant species. Like many states, however, Kentucky has lost a significant portion (81 percent) of its historical wetland area to agricultural conversion.¹ Kentucky relies primarily on §401 water quality certification under the Clean Water Act (CWA) to regulate impacts to its remaining wetlands. However, the CWA §404 Task Force, a group of state agencies and private stakeholders, was created in 2005 as part of an ongoing assessment of the benefits of state administration of the federal CWA §404 Program.² The Kentucky Department for Environmental Protection - Division of Water (KDOW) and the Kentucky Department of Fish and Wildlife Resources (KDFWR) have collaborated with federal agencies to develop comprehensive mitigation guidelines for wetlands.³ KDFWR also conducts various non-regulatory wetland-related activities, including wetland restoration and education and outreach.⁴

II. Regulatory Programs

Wetlands definitions and delineation

Under Kentucky's environmental protection statute, "water" or "waters of the Commonwealth" include "any and all rivers, streams, creeks, lakes, ponds, impounding reservoirs, springs, wells, marshes, and all other bodies of surface or underground water, natural or artificial, situated wholly or partly within or bordering upon the Commonwealth or within its jurisdiction."⁵ The regulatory definition for "surface waters" is:

those waters having well-defined banks and beds, either constantly or intermittently flowing; lakes and impounded waters; marshes and wetlands; and any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface. Effluent ditches and lagoons used for waste treatment which are situated on property owned, leased, or under valid easement by a permitted discharger are not considered to be surface waters of the commonwealth.⁶

Kentucky regulations further define a wetland as "land that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration

¹ THOMAS E. DAHL, WETLANDS LOSSES IN THE UNITED STATES 1780'S TO 1980'S (U.S. Department of the Interior, Fish and Wildlife Service 1990), *available at* <http://www.npwrc.usgs.gov/resource/wetlands/wetloss/index.htm#contents>.

² Kentucky Division of Water, *404 Task Force*, at <http://www.water.ky.gov/taskforce/> (last visited on Apr. 26, 2006). See ENVTL. AND PUBLIC PROT. CABINET (EPPC), STATUS REPORT TO THE GENERAL ASSEMBLY ON THE KENTUCKY CLEAN WATER ACT SECTION 404 TASK FORCE (2005) *available at* http://www.water.ky.gov/NR/rdonlyres/0738B4E3-39B6-47A6-956E-797BOECE408E/0/404EPPC_Final_Report.pdf.

³ KY. DIV. OF WATER, WETLAND COMPENSATORY MITIGATION AND MONITORING PLAN GUIDELINES FOR KENTUCKY, *available at* http://www.water.ky.gov/NR/rdonlyres/BC3F4926-1327-4965-A50C-2B1FCE01FDE5/0/Wetland_guide.pdf (last visited July 25, 2007).

⁴ Personal communication with Kevin Tucker, Ky. Dep't of Fish and Wildlife Res. (July 13, 2006).

⁵ KY. REV. STAT. ANN. § 224.01-010(33).

⁶ 401 KY. ADMIN. REGS. 5:002(298).

sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.”⁷

With regard to §401 certification, the state relies on federal wetlands delineation criteria outlined in the U.S. Army Corps of Engineers (“Corps”) 1987 *Wetlands Delineation Manual*.⁸

Wetland-related Laws and Regulations

In addition to CWA §401 and the state’s water quality rules, Kentucky also has adopted laws related to agricultural water quality planning and compensatory mitigation.

§401 Certification. Any activities which require a federal permit or license and that involve a discharge into waters of the state require §401 certification by Kentucky’s water quality certification program to ensure consistency with state water quality standards (WQS). KDOW’s Water Quality Certification Section (WQCS) issues approximately 200 §401 certifications per year. Almost all of the §401 applications received by WQCS are approved, but applications are occasionally withdrawn or revised by the applicant with regard to design or mitigation to avoid denial. Few certifications are waived.⁹ The WQCS relies almost exclusively on a qualitative assessment of certification applications, which is based on narrative WQS.¹⁰

The WQCS also 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.¹¹

*Kentucky Agricultural Water Quality Act.*¹² In 1994, the Kentucky General Assembly passed the Kentucky Agriculture Water Quality Act in order to protect surface and groundwater resources from agricultural pollution.¹³ 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.¹⁴ The state plan

⁷ 401 KY. ADMIN. REGS. 5:002(330).

⁸ ENVTL. LAB., WETLANDS RESEARCH PROGRAM TECHNICAL REPORT Y-87-1, CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (U.S. Army Corps of Engineers 1987), *available at* <http://www.mvn.usace.army.mil/ops/regulatory/wlman87.pdf>.

⁹ This tool was used heavily in 2006 but is being reduced back to previously low levels as new staff has been hired. Email from Jenni Garland, Kentucky Division of Water, Water Quality Certification Section (June 27, 2007).

¹⁰ Personal communication with Jenni Garland, Ky. Div. of Water, Water Quality Certification Section (Apr. 18, 2006).

¹¹ Kentucky Division of Water, *General Conditions of the Water Quality Certification*, at http://www.water.ky.gov/permitting/wqcert/General_Conditions.htm (last visited July 25, 2007).

¹² KY. REV. STAT. ANN. §§ 224.71-100, 224.71-140.

¹³ *Id.*

¹⁴ Email from Steve Coleman, Director, Div. of Conservation (May 8, 2006). (The Kentucky Agricultural Water Quality Plan is a compilation of 59 best management practices (BMPs) that have been approved by the Kentucky

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.¹⁵

*Wetland or Stream Compensatory Mitigation Projects -- Mitigation Fund.*¹⁶ State statute allows the KDFWR to contract with any state agency or other organization to undertake any compensatory mitigation project including establishing mitigation banks and in-lieu-fee programs.¹⁷ In addition, it establishes the Kentucky Wetland and Stream Mitigation Fund within the Kentucky State Treasury “for the purpose of restoring, creating, enhancing or preserving the Commonwealth’s wetlands or streams that may be damaged or destroyed due to any project, recovering costs associated with performing these projects, and administering these programs.”¹⁸ The KDFWR administers the Mitigation Fund.

Organization of state agencies

Two state agencies are involved in wetlands issues in Kentucky: KDOW and KDFWR. KDOW administers the state’s §401 water quality certification program and is also responsible for monitoring Kentucky’s waters. KDFWR conducts non-regulatory activities such as wetlands restoration and protection; the agency also helped KDOW and other agencies to prepare Kentucky’s mitigation guidelines.

Kentucky Department of Environmental Protection - Division of Water. KDOW’s Water Quality Certification Section was created in 1995. The WQCS operates on an annual personnel budget of approximately \$214,000. Seventy percent of these funds come from state general appropriations, while the remaining 30 percent come from federal sources.¹⁹ WQCS has seven full time staff including one supervisor, one administrative staff member, one compliance/enforcement staff member and four program managers.²⁰ The staff is responsible for reviewing project applications for compliance with Kentucky’s WQS and issuing §401 certifications. In addition, the staff reviews annual reports for all mitigation sites (submitted by applicants as a condition of §401 certification), and occasionally helps to coordinate enforcement actions.²¹ The KDOW also helped to prepare Kentucky’s mitigation guidelines and in-lieu-fee (ILF) policy guidance²² and participates in the mitigation review team (MRT) for mitigation banks and ILF programs. The WQCS is based in Frankfort.

Agriculture Water Quality Authority as being the most effective in preventing pollution. In addition to minimum requirements defined in each BMP, the state plan also serves as a planning tool for agriculture and silviculture producers and provides regulatory guidance for those producers as they develop and implement their site-specific plans.)

¹⁵ *Id.*

¹⁶ KY. REV. STAT. ANN. § 150.255.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Email from Jenni Garland, Ky. Div. of Water, Water Quality Certification Section (July 31, 2006).

²⁰ Email from Jenni Garland, Ky. Div. of Water, Water Quality Certification Section (June 27, 2007).

²¹ Garland, *supra* note 10.

²² U.S ARMY CORPS, LOCAL PROCEDURES ON THE FUNCTIONS OF THE MITIGATION REVIEW TEAM AND USE OF IN-LIEU-FEE MITIGATION IN KENTUCKY (2003), available at <http://www.lrl.usace.army.mil/orf/article.asp?id=156> (last visited July 25, 2007).

Kentucky Department of Fish and Wildlife Resources. KDFWR operates various activities and programs involving wetland restoration. For example, KDFWR collaborates with other state, federal, and non-governmental partners on federal wetland programs such as the USDA Natural Resources Conservation Service (NRCS) Wetlands Reserve Program (WRP) and Kentucky Partners for Wetland Wildlife (KPWW).²³ KDFWR also provides landowners with technical guidance on restoration projects. The agency's wetland-related restoration programs are staffed by 2.25 biologists, including a Migratory Bird Program Coordinator.²⁴ In addition, KDFWR administers the Kentucky Stream and Wetland Mitigation Trust Fund,²⁵ signed the ILF policy guidance for Kentucky, and participates in the MRT established by the ILF guidance. KDFWR also participated in the preparation of Kentucky's mitigation and monitoring guidelines. KDFWR's wetlands work is funded solely through the sale of hunting and fishing licenses and boat registrations.²⁶

Nationwide permits

Kentucky has applied various conditions Corps' 2007 nationwide permits (NWP), while others have been certified as written or denied.²⁷ As of June 2007, Kentucky had yet to release statewide regional conditions for the NWPs.

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). These

²³ Kentucky Department of Fish and Wildlife, *Kentucky Partners for Wetland Wildlife*, at <http://www.kdfwr.state.ky.us/wetlandwildlife.asp?lid=1048&NavPath=C100C153> (last visited July 25, 2007) (The KPWW is jointly administered by the KDFWR, the NRCS, Ducks Unlimited and the U.S. Fish and Wildlife Service.).

²⁴ Kevin Tucker, *supra* note 4.

²⁵ KY. REV. STAT. ANN. § 150.255.

²⁶ Kentucky Department of Fish and Wildlife, *supra* note 23.

²⁷ The following NWPs have been certified as written: NWP #1 - Aids to Navigation, NWP #2 - Structures in Artificial Canals, NWP #4 - Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities, NWP #6 - Survey Activities, NWP #8 - Oil and Gas Structures on the Outer Continental Shelf, NWP #9 - Structures in Fleeting and Anchorage Areas, NWP #10 - Mooring Buoys, NWP #11 - Temporary Recreational Structures, NWP #19 - Minor Dredging, NWP #20 - Oil Spill Cleanup, NWP #22 - Removal of Vessels, NWP #24 - Indian Tribe or State Administered 404 Programs, NWP #28 - Modification to Existing Marinas, NWP #34 - Cranberry Production Areas, NWP #35 - Maintenance Dredging of Existing Basins, NWP #36 - Boat Ramps, NWP #40 - Agricultural Activities, NWP #41 - Reshaping Existing Drainage Ditches, NWP #47 - Pipeline Safety Program Designated Time Sensitive Inspections and Repairs, NWP #48 - Existing Commercial Shellfish Aquaculture Activities. The following NWPs have been certified with conditions: NWP #3 - Maintenance, NWP #5 - Scientific Measurement Devices, NWP #7 - Outfall Structures and Associated Intake Structures, NWP #12 - Utility Line Activities, NWP #13 - Bank Stabilization, NWP #14 - Linear Transportation Projects, NWP #15 - U.S. Coast Guard Approved Bridges, NWP #18 - Minor Discharges, NWP #21 - Surface Coal Mining, NWP #23 - Approved Categorical Exclusions, NWP #2 - Structural Discharges, NWP #27 - Aquatic Habitat Restoration, Establishment, and Enhancement Activities, NWP #29 - Residential Developments, NWP #30 - Moist Soil Management for Wildlife, NWP #31 - Maintenance of Existing Flood Control Facilities, NWP #33 - Temporary Construction, Access and Dewatering, NWP #37 - Emergency Watershed Protection and Rehabilitation, NWP #39 - Commercial and Institutional Developments, NWP #42 - Recreational Facilities, NWP #43 - Stormwater Management Facilities, NWP #45 - Repair of Uplands Damaged by Discrete Events, NWP #46 - Discharges in Ditches, NWP #49 - Coal Remining Activities, NWP #50 - Underground Coal Mining Activities. The following NWPs have been denied: NWP #16 - Return Water from Upland Contained Disposal Areas, NWP #17 - Hydropower Projects, NWP #32 - Completed Enforcement Actions, NWP #38 - Cleanup of Hazardous and Toxic Waste, NWP #44 - Mining Activities. NWP #26 was reserved. See Kentucky Division of Water, *Water Quality Certification of 2007 Nationwide Service*, at <http://www.water.ky.gov/permitting/wqcert/cert2007permits/> (last visited July 25, 2007).

conditions prohibit dredging in Outstanding State Resource Waters or sites providing habitat to important biological communities, as well as sites dredged within five years, 1,500-feet upstream or 500-feet downstream of known mussel beds, and within 2,500-linear feet of drinking water intake. In addition, permittees are required to: provide the appropriate notification to the KDOW; obtain a Kentucky Pollutant Discharge Elimination System permit from KDOW; take measures to prevent or control spills of fuel, lubricants or other materials; and notify KDOW upon violation of water quality standards. A §401 certification is required for any dredging that does not meet these conditions.²⁸

Mitigation

The *Wetland Compensatory Mitigation and Monitoring Plan Guidelines for Kentucky* (“Kentucky Guidelines”) was jointly prepared in 1993 by the Louisville Corps District, U.S. Fish and Wildlife Service (FWS) Region IV, U.S. Environmental Protection Agency (EPA) Region V, KDOW, and KDFWR to assist applicants with the creation of mitigation and monitoring plans for projects requiring a §404 permit and §401 certification.²⁹ Although no specific wetland mitigation goals are established in this document, it contains guidelines for development site description, mitigation site description, success criteria and performance standards for the mitigation site, monitoring details, permanent protection plans, and contingency plans. When applying for a water quality certification through KDOW, an applicant must follow the Kentucky Guidelines for wetland-related impacts involving greater than one acre.³⁰ In addition, state law authorizes the KDFWR to establish and operate wetland or stream mitigation banks.³¹

KDOW also has developed stream mitigation guidelines.³² The guidelines include: criteria for determining when compensatory mitigation will be required; data required to support stream relocation projects; general criteria for stream relocation design; physical monitoring requirements for stream relocation/mitigation projects; biological monitoring requirements of stream projects; acceptable compensatory mitigation types.³³ The KDOW is currently working to develop joint mitigation crediting with the Corps.³⁴ Applicants are required to submit a detailed plan and profile drawings, along with an application for stream-related impacts that involve more than 300-linear feet of stream disturbance.³⁵ In addition, impacts to streams or lakes designated as Special Use Waters require an individual certification and a detailed sediment and erosion control plan.³⁶

In 2002, KDFWR signed an ILF agreement with the Great Lakes and Ohio River Divisions of the Corps (Louisville, Huntington and Nashville districts) that allows the Kentucky Wetland and

²⁸ Letter from Tom C. Van Arsdall, Manager, Water Quality Branch, Ky. Div. of Water, to Mr. Jim Townsend, Chief of Eng’rs, U.S. Army Corps of Eng’rs Louisville District (June 19, 2006).

²⁹ KY. DIV. OF WATER, *supra* note 3.

³⁰ *Id.* State law also outlines water quality certification mitigation requirements for NWP #21 and #26 (includes surface coal mining). KY. REV. STAT. ANN. § 224.16-070.

³¹ KY. REV. STAT. ANN. § 150.255.

³² Ky. Div. of Water, Draft Stream Mitigation Guidelines (2002), *available at* http://www.water.ky.gov/NR/rdonlyres/B8FE078D-6100-4A61-93A0-A7B49A007FDC/0/New_Guidelines.pdf.

³³ *Id.*

³⁴ Garland, *supra* note 20.

³⁵ *Id.*

³⁶ Kentucky Division of Water, *Water Quality Certification General Information*, at <http://www.water.ky.gov/permitting/wqcert/General+Information.htm> (last visited July 25, 2007).

Stream Mitigation Fund (described above) to receive in-lieu-fees from Department of Army permittees.³⁷ The primary focus of this agreement is mitigation for impacts to streams. In 2003, state and federal agencies, including the Louisville, Huntington and Nashville Corps Districts, EPA Region V, FWS Kentucky Field Office, KDFWR, and KDOW, created local procedures and established an MRT that defines the conditions under which the Stream and Wetland Mitigation Fund may be used. The MRT reviews proposed projects for design and construction and performs a yearly review of ongoing and completed projects.³⁸ The Louisville Corps District serves as chair but gives deference to other Corps districts for projects in their respective areas.³⁹

Compliance and enforcement

The Kentucky Department for Environmental Protection (KDEP), Division of Enforcement has a general enforcement program for water quality but does not operate a separate wetlands program. Most of Kentucky's §401/404 violations are referred to the Corps; however, major violations are referred to KDEP, Division of Enforcement.⁴⁰

Tracking systems

KDEP manages Kentucky'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. Most of the tracking data is collected from §401 certification applications and required annual mitigation reports. Site visits are conducted by WQCS project managers before the site is released from monitoring requirements. If action needs to be taken, a letter is written to the applicant to notify them of the problem and to request a remediation plan. The remediation plan may extend the length of the required monitoring period for the mitigation project.⁴¹

III. Water Quality Standards

Kentucky has not adopted wetland-specific water quality standards (WQS), anti-degradation policies, and designated uses. However, general WQS applicable to all surface waters also are applicable to wetlands.⁴² Wetlands and all surface waters not specifically assigned designated uses are designated for the use of warm water aquatic habitat, recreation use, and water

³⁷ Agreement Concerning In Lieu Mitigation Fees Between Kentucky Department of Fish and Wildlife Resources and the U.S. Army Corps of Engineers *available at* <http://www.orn.usace.army.mil/cof/notices/inlieuKY.pdf> (last visited July 25, 2007).

³⁸ Local procedures on the functions of the mitigation review team and use of in-lieu-fee mitigation in Kentucky (2003) *available at* <http://www.lrl.usace.army.mil/orf/article.asp?id=156> (last visited Aug. 4, 2006).

³⁹ Garland, *supra* note 19.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² 401 KY. ADMIN. REGS. 5:002(298).

supply/quality.⁴³ Kentucky's water quality standards are based on chemical, biological and narrative criteria.⁴⁴

IV. Monitoring and Assessment

KDOW oversees the state's aquatic monitoring programs, which integrate the collection of physical, chemical, and biological elements to assess the quality of the aquatic environment. KDOW's Watershed Management Section monitors aquatic resource issues under a rotating watershed approach.⁴⁵ KDOW uses the monitoring data to determine designated use, as defined by the state's water quality regulations, and to identify water quality problems. Kentucky has no state monitoring program specifically for wetlands.⁴⁶ KDOW also administers *Water Watch*, the volunteer monitoring program.⁴⁷

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.⁴⁸ In addition, Kentucky has developed two indices, the Kentucky Macroinvertebrate Bioassessment Index and the Kentucky Index of Biotic Integrity (uses fish as a biological indicator), to assess the quality of streams.⁴⁹

KDFWR is responsible for monitoring volunteer wetland restoration projects under the WRP and KPWW programs.⁵⁰ KDFWR's wetlands biologists visit each site at least once annually to determine the success and long-term management needs of each restoration site. A four-page monitoring document designed to assess waterfowl use, aquatic vertebrate use, plant distribution, and recruitment (bottom and hardwood trees spacing) is completed for each site visit.

⁴³ 401 KY. ADMIN. REGS. 5:026(Section 5)(2).

⁴⁴ 401 KY. ADMIN. REGS. 5:031.

⁴⁵ Kentucky Division of Water, *Monitoring and Assessment*, at <http://www.water.ky.gov/sw/swmonitor/> (last visited July 25, 2007) (KDOW operates 71 fixed long-term water quality monitoring stations throughout the commonwealth, and an additional 20 - 25 rotating watershed monitoring sites that provide more intensive scrutiny of water quality conditions).

⁴⁶ Garland, *supra* note 19.

⁴⁷ *Id.* The "Water Watch" program is dedicated to helping to protect Kentucky's streams, rivers, lakes and wetlands through volunteer monitoring, community education initiatives and community leadership and action. See Kentucky Division of Water, *Water Watch*, at <http://www.water.ky.gov/ww/> (last visited July 25, 2007) (The "Watershed Watch" program helps to improve Kentucky's waterways through a coordinated campaign of water quality monitoring, skills development and advocacy). See also Watershed Watch, *Watershed Watch Program Information*, at <http://kywater.org/watch/> (last visited July 25, 2007).

⁴⁸ WILLIAM B. AINSLIE ET AL., WETLAND RESEARCH PROGRAM TECHNICAL REPORT WRP-DE-17: A REGIONAL GUIDEBOOK FOR ASSESSING THE FUNCTIONS OF LOW GRADIENT, RIVERINE WETLANDS IN WESTERN KENTUCKY, OPERATIONAL DRAFT (1999), available at <http://el.erdc.usace.army.mil/wetlands/pdfs/wrpde17/wrpde17.pdf>.

⁴⁹ KY. DEP'T OF ENVTL. PROT., THE KENTUCKY MACROINVERTEBRATE BIOASSESSMENT INDEX (MBI): DERIVATION OF REGIONAL NARRATIVE RATINGS FOR ASSESSING WADEABLE AND HEADWATER STREAMS (2003), available at http://www.water.ky.gov/NR/rdonlyres/7F189804-4322-4C3E-B267-5A58E48AAD3F/0/Statewide_MBI.pdf; KY. DEP'T OF ENVTL. PROT., The Kentucky Index of Biotic Integrity (KIBI): DERIVATION OF REGIONAL NARRATIVE RATINGS FOR ASSESSING WADEABLE AND HEADWATER STREAMS (2003), available at http://www.water.ky.gov/NR/rdonlyres/04C65101-AF1C-4751-809B-4F5D09B7269A/0/KIBI_paper.pdf.

⁵⁰ Tucker, *supra* note 4.

V. Restoration and Partnerships

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. KDFWR funds an average of 11 WRP easements per fiscal year; depending on the size of the easements.⁵¹

KPWW, a joint effort of the KDFWR, FWS, NRCS, and Ducks Unlimited, was established in 1995 with a goal of increasing shallow water seasonal habitat for wetland wildlife. KPWW provides water-control structures at no cost to landowners and may reimburse as much as 50 percent of levee construction costs (up to a \$5000 maximum payment).⁵² The program operates about 20 new projects for a total of approximately 400-acres of shallow water per year. KDFWR and KDNR, Division of Conservation also collaborate with NRCS on the Conservation Reserve Enhancement Program (CREP).⁵³ In addition, KDFWR is working closely with The Nature Conservancy to identify priority wetland systems for restoration. The results of this partnership will be used to guide future restoration in Kentucky and focus federal money to priority sites.⁵⁴

KDFWR biologists provide technical guidance to landowners who are interested in restoring wetlands on their property and assist landowners in choosing the appropriate federal restoration funding program. KDFWR receives 60 to 70 requests for assistance each year.⁵⁵

VI. Education and Outreach

Kentucky has no formal outreach or education programs specific to wetlands. However, in addition to the technical assistance and outreach described above, KDFWR runs wetland programs upon request at the Salato Wildlife Education Center.⁵⁶ The Salato Wildlife Education Center offers indoor and outdoor exhibits and activities, as well as a variety of scheduled programs, events, and workshops. Wetland-related programs are designed by KDFWR biologists and are tailored to the audience requesting the program. In addition, KDFWR has developed informational literature on management, restoration, and other wetland topics, which are provided to the public upon request.⁵⁷

VII. Coordination with State and Federal Agencies

Kentucky state agencies work closely with federal agencies on wetland restoration projects and mitigation programs and guidelines. In 2003, KDFWR and the NRCS established a WRP

⁵¹ *Id.*

⁵² Kentucky Department of Fish and Wildlife Resources, *supra* note 23.

⁵³ Tucker, *supra* note 4.

⁵⁴ Personal communication with Rocky Pritchert, Ky. Dep't of Fish and Wildlife Res. (July 13, 2006).

⁵⁵ Tucker, *supra* note 4.

⁵⁶ *Id.*

⁵⁷ Pritchert, *supra* note 54.

program in Kentucky.⁵⁸ Under this agreement, two KDFWR biologists work together with NRCS staff on projects related to wetland restoration for the WRP. KDFWR also collaborates with NRCS and FWS on the KPWW and CREP.

KDOW, KDFWR, Kentucky Department of Transportation (KDOT), Corps, EPA, and FWS have created an ILF agreement and have formed an associated MRT. The MRT meets on project and programmatic issues approximately five to seven times per year, but additional meetings are scheduled to discuss new KDOT mitigation projects.⁵⁹ KDOW and KDFWR also coordinate with the Corps, EPA and FWS on other §401/404 issues. KDFWR also occasionally works informally with KDOT on mitigation issues and has received mitigation land from KDOT.⁶⁰

VIII. Acronyms and Abbreviations

BMP – Best Management Practice
Corps – U.S. Army Corps of Engineers
CFR – Code of Federal Regulations
CREP – Conservation Reserve Enhancement Program
CWA – Clean Water Act
EPA – U.S. Environmental Protection Agency
FTE – Full-time Equivalent
FWS – U.S. Fish and Wildlife Service
HGM – Hydrogeomorphic
ILF – In-lieu-fee Mitigation
KDEP – Kentucky Department for Environmental Protection
KDFWR – Kentucky Department of Fish and Wildlife Resources
KDOW – Kentucky Division of Water
KDOT – Kentucky Department of Transportation
KPWW – Kentucky Partners for Wetland Wildlife
MRT – Mitigation Review Team
NRCS – Natural Resources Conservation Service
NWPs – Nationwide Permits
OSRW – Outstanding State Resource Water
USDA – U.S. Department of Agriculture
WRP – Wetlands Reserve Program
WQCS – Water Quality Certification Section
WQS – Water Quality Standards

⁵⁸ Tucker, *supra* note 4.

⁵⁹ Garland, *supra* note 19.

⁶⁰ Tucker, *supra* note 4.